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PRINCIPLES OF AGRICULTURAL CREDIT

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BY

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PREFACE

The enormous increase in the use of credit by farmers since the beginning of the twentieth century has attracted much attention to the problem of securing adequate credit facilities for the agricultural industry. A national system of farm-mortgage banks was provided for in the Federal Farm Loan Act of 1916. Similarly, a system of intermediate-credit banks was established by the Agricultural Credits Act of 1923, and the Federal Reserve Act of 1913 increased the facilities of country banks for supplying the seasonal credit needs of farmers. Most of the interest in agricultural credit has centered on the sources of credit, and the books which have been written on the subject in this country have been restricted largely to a description of the agricultural banking institutions and their development.

The central aim here is to analyze the economic principles involved in the transfer of credit from its original sources to the borrowers. The discussion centers around the three agencies in the transfer of credit: (1) the original investors and depositors who supply funds to the banks or directly to farmers, (2) the borrowers, and (3) the banks and other financing institutions which act as intermediaries between the original investors and the borrowers. Thus, in Part I, emphasis is placed upon the origin of credit and the factors which affect the flow of credit into commerce, industry, and agriculture. In Part II, the various uses of credit by farmers are described in detail. The security offered for the different types of loans is analyzed, and a chapter is included on the legal phases of farm security. In this discussion, the basic factors in credit analyses by bankers and other lenders are considered.

The methods used by financing institutions in obtaining funds from original investors and making loans are discussed in Part III. Here emphasis is placed upon credit analyses and the standardization of farm securities. The banks are visualized as the agents who collect notes and mortgages from a large number of individual farmers and, through their indorsement,

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proper credit analyses, and standardization of the securities, attract funds from widely distributed investors and depositors. The banker is the middleman who collects funds from many sources and distributes them to individual borrowers, and in the reverse swing of the process he collects notes and mortgages from many farmers and distributes them to investors or uses them as a basis for the safety of depositors. He merchandises funds and securities. In this section of the volume, factors which affect his efficiency in collecting and dispensing funds are considered.

The two chapters in Part IV include an analysis of the cost of credit obtained through commercial banks. Unfortunately, there is only a very limited amount of information on the cost of credit to farmers. This is particularly true of credit obtained from merchants and farm-mortgage companies. Adequate conclusions as to methods of reducing the cost of farm credit must be based upon far more thorough studies of the costs of operating banks and credit stores than have been made. The greatest opportunities in farm-credit research lie in this field. The relation of the federal and state governments to agricultural credit is discussed in the three chapters in Part V.

I am grateful to Mr. Charles E. Lobdell, Fiscal Agent of the Federal Farm Loan Board, to the presidents of the federal land banks, and to the managers of the intermediate-credit banks for information on the methods and policies of these banks. I wish, also, to thank the many members of the Farm Mortgage Bankers' Association of America who made a ready response to questions on various practices of farm-mortgage companies. Information from these companies was particularly welcome since very little has been published concerning their methods of operation.

To my colleagues, Prof. T. W. Leland and Mr. H. J. Reinhard, who read the manuscript, I wish to express my hearty appreciation. I am particularly indebted to Prof. Richard T. Ely and Dr. Edward W. Morehouse who read the manuscript and made many valuable suggestions both as to content and method of presentation. I assume full responsibility for errors.

VIRGIL P. LEE.

COLLEGE STATION, TEXAS.
February, 1930.

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PRINCIPLES OF AGRICULTURAL CREDIT

CHAPTER I

THE IMPORTANCE OF CREDIT IN AGRICULTURE

Credit has come to occupy such an important position in the production and exchange of goods in all lines of industry that many writers have described our whole economic system as a "credit society," signifying that the extensive use of credit is the outstanding characteristic of modern business. More frequently our modern economic system has been called a "capitalistic system," because of the extensive application of capital as a supplement to labor in production. But students of finance have emphasized the fact that the development of credit has made possible our present extensive use of capital; that while the "capitalistic system" had its impetus in the mechanical inventions, the use of credit has been of inestimable importance in concentrating the accumulated capital of whole populations into business organizations of sufficient size to be capable of utilizing the new inventions to the best advantage.

One writer has given three bases for the development of the modern credit system:

> First, a sense of business morality, or what may amount to the same thing, a recognition of the fact that honesty is the best policy; second, a relatively stable monetary standard for deferred payments; and third, a legal system designed to safeguard the rights of individuals and to enforce a prompt fulfillment of contracts.[1]

He says further that

> . . . the evolution of these three supports of the credit system has been one of the most significant features of the transformation from medieval to modern industrial society.

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[1] Moulton, H. G., "The Financial Organization of Society," 1st ed., p. 128.

In order to make any accurate estimate of the importance of credit in our whole business structure, it will be necessary in the beginning to make a clear distinction between credit which is used primarily for convenience in exchange and credit which is obtained because of a lack of ready funds. It may be found, for instance, that credit has almost completely replaced money in exchange transactions, while not more than one-fourth of the operating and investment capital of the country is borrowed.

Credit for Exchange.—Credit is used extensively in exchange transactions. The convenience of the check as a medium of exchange has resulted in the replacement of money by credit in the majority of business transactions. The exact percentage of payments which are made by this type of credit instrument is not known, but estimates have been made which indicate that it is very high. The National Monetary Commission of 1908 found by an analysis of the receipts of a large number of banks "that a large proportion of the business of the country, even the retail trade, is done by means of credit instruments."[1] The study showed that in the retail trade 50 to 60 per cent of the transactions are settled in this way, and that in the wholesale trade over 90 per cent of the payments are made by checks and other credit instruments. "We may, therefore, safely accept an average of 80 to 85 per cent as the probable percentage of the business done by check."[2]

Under the caption "Credit without Money," an English writer[3] very effectively describes the importance of credit as a medium of exchange by the assertion that it is just as accurate to say that money is a substitute for credit as to say that credit is a substitute for money. He states that money has the twofold function of being a standard of value and a means of discharging debts, but that in the latter function it has been largely supplanted by credit. Historically, credit has been substituted for money, but in our daily business transactions it can be said that money is in reality used only as a substitute for credit. If we exclude the small retail transactions in which money is more convenient and the relatively small payments made by "strangers," it is not an exaggeration to say that money as a medium of exchange in the more highly civilized countries is almost obsolete.

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[1] KINLEY, DAVID, "The Use of Credit Instruments in Payments in the United States" (*Report* of the National Monetary Commission), p. 99.

[2] *Ibid.*

[3] HAWTREY, R. G., "Credit and Currency," p. 15

Credit for Operation and Investment.—But credit used to facilitate exchange is only one phase of the subject. In fact, in business transactions, credit instruments used for convenience in exchange are ordinarily considered as "cash" in contrast to credit which involves more time and which is obtained because of a lack of immediate purchasing power. It is only when referring to the latter type of credit that the creditor is spoken of as a lender and the debtor, as a borrower. The most tangible measure of the significance of credit in business operations is obviously the percentage of the total investment and operating capital which is borrowed. It should be remembered, however, that this measure falls short of fully describing the importance of credit in production. For instance, if it is found that farmers borrow 20 per cent of their operating capital, it does not follow that this figure measures the full significance of operating credit. Credit is the flexible element which makes it possible to have the proper amount of labor and supplies at the right time. A timely loan of an amount equal to 20 per cent of the total amount of operating capital used may double the production of the farm. Likewise, the addition of 25 acres to a 100-acre farm by borrowing may increase the farmer's productivity by more than 25 per cent.

It is difficult to make an accurate estimate of the percentage of the operating and investment capital which is borrowed. At present, the best way of getting this information is to examine the financial statements of business concerns. But even the financial statement does not give evidence of the exact proportion of the credit which is used for securing operating and investment capital. For instance, a part of the funds obtained from a long-term bond issue may be used as operating capital, or on the other hand, funds secured through short-term notes or bonds may be used for capital investment. The accountant knows that the "current liabilities" should not exceed one-third or one-half of the "quick assets" of a business, but these limitations scarcely form a basis which is definite enough for a conclusion regarding all business. From a purely logical standpoint, short-term credit should be used to secure operating capital, but in actual practice this is not an inflexible rule. Hence if any definite estimate is to be made of the extent to which American business is run on credit, operating credit and investment credit must be combined.

Industrial Credit. An analysis of the financial statements of 188 companies in the leading industries in 1921 showed that an average of approximately 25 per cent of the total capital used was borrowed.[1] The average percentage of borrowings of these companies varied from 25 to 30 per cent from 1914 to 1921. In 1921, approximately 15 per cent was represented by long-term borrowings and 10 per cent by short-term borrowings.[2] The percentage of the total capital employed which was borrowed varied in 1921 from 14.3 per cent for department stores to 48.6 per cent for slaughtering and meat-packing companies. It is reasonable to assume that these figures are representative of merchandising and manufacturing establishments of the country since they are based upon an analysis of the financial statements of companies representing the leading branches of commerce and industry in the United States.

Public Utility Credit.—The proportion of borrowed capital in the public utilities seems to be considerably greater than in industrial and commercial concerns. Thus, in 1922, the funded debt of privately owned central electric light and power stations was 51.5 per cent of the total capitalization outstanding;[3] of electric railways 57.2 per cent;[4] of steam railroads 59.0 per cent;[5] and for the American Telephone and Telegraph Company the bonded debt was 43.6 per cent of the capitalization.[6]

Government Credit.—Borrowing has likewise come to play a very important part in government financing. It is impossible, however, to trace the relation between the capital employed and the amount of borrowings, since government funds are not always invested in what is ordinarily called productive enterprises. For example, a large part of the present indebtedness of the federal government is due to the recent World War from which no immediate financial returns may be expected. Funds spent for public parks or school buildings are not financial investments in the sense that the purchase of a factory is an investment for the industrial corporation. Hence, the relative importance of credit in the financing of federal, state, and local governments must be measured in some other way.

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[1] Bliss, James H., "Financial and Operating Ratios in Management," p. 173.

[2] *Ibid.*

[3] Census of Electrical Industries, 1922, "Central Electric Light and Power Stations," p. 115.

[4] Census of Electrical Industries, 1922, "Electric Railways," p. 111.

[5] Moody, "Public Utilities," p. xxxii, 1928.

[6] *Ibid.*, p. 915, 1923.

A measure which at least is suggestive is the percentage of the annual receipts used to pay interest on borrowings and to provide for payment of the principal of the debt. From 1921 to 1924, the federal treasury used an average of approximately 29 per cent of the total ordinary receipts to pay interest and to provide the sinking fund for payment of the principal of the public debt. Another illuminating comparison is that of our government debt with the total wealth of the country. Such a comparison can logically be made, since there is a direct relation between the amount of wealth in the country and the ability of the government to collect taxes. The total debt of the federal, state, and local governments in the United States, in 1922, amounted to approximately 10 per cent of the estimated total wealth of the country. The debt of the federal government comprised about 72 per cent of the total, while that of counties, municipalities, and other local units was about 25 per cent, and that of state governments 3 per cent.[1]

CREDIT IN AGRICULTURE

The extensive use of credit by American farmers is a recent development. It is explained largely by the phenomenal increase in the value of the investment and operating capital used in farm production, and in the commercialization of agriculture. The increase in investment capital is due, in the first place, to the increase in the price of farm lands, building materials, machinery, and livestock; and, secondly, to the improved quality and increased quantity of machinery, livestock, and improvements which are necessary in the more intensive stage of agricultural development which we are entering.

Likewise, the commercialization of agricultural production has had a great influence upon the use of credit, particularly operating credit. From the semi-self-sufficing stage of agriculture of the early nineteenth century we have developed to a high degree of specialization. The practice of specializing in the production of one or a very few crops and depending upon buying in the market, rather than producing a great variety of commodities and consuming them at home, has increased the farmer's credit operations in two distinct ways.

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[1] Bureau of the Census, "Wealth, Debt, and Taxation," 1922.

In the first place, the necessity of buying the goods he needs during the year, rather than operating on his own stored-up products of the previous year, has led to his dependence upon others, in greater or less degree, for operating capital. That is, instead of storing up the "cash" which he receives for goods, he spends it and shifts the financing of his next crop to the merchant and the banker. The practice of being one year behind in financing is most prevalent among farmers in the one-crop sections of the country, such as the cotton and wheat belts. The crop is usually sold in the summer and fall and the receipts are largely absorbed in the payment of debts incurred during the growing season. It is a common practice to begin borrowing again some time during the first quarter of the following year. The primary cause of this practice is specialization and the resulting dependence upon outside sources for most of the goods needed by the farmer. Also, the farmer's income is in the form of money, and cash is easily spent. In earlier days there was no question of spending. The farmer either stored away sufficient provisions or else subsisted upon a scanty supply. Now, many farmers look to the future crop to pay for present purchases. This practice accounts for a large share of the modern farmer's operating credit problems.

In the second place, commercial or specialized farming has greatly extended the time intervening between the maturity and consumption of agricultural products. Time is required to locate markets and to transport the commodities to all parts of the world. The modern process of refrigeration alone has greatly extended the markets for meats and other perishable products. In fact, one of the purposes of refrigeration is to extend the time between the maturity and consumption of the product. While this development has resulted in a great advantage to both the producer and the consumer, it has, nevertheless, accentuated the importance of credit in financing the marketing of farm products. Some one must have an investment in the goods for a longer period of time. Ordinarily, in the past, the financing problem in marketing has been looked after by the different middlemen who handle the product, and the farmer received cash at the end of his growing season. But frequently farmers themselves have considered it desirable to hold the crop for better market conditions. In such cases, the responsibility of having "money tied up" is shifted to the farmer, and he often finds it necessary to borrow from the bank.

The recent growth of farmers' cooperative selling agencies, which follow the policy of marketing products gradually through the year, has greatly increased the significance of market financing to the farmer. The development of the cooperative marketing movement is, of course, a direct outgrowth of the problems created by specialization in agriculture. The farmer's welfare now depends upon his ability to sell products to best advantage as well as his ability to produce them. The resulting increase in the significance of credit in farming is in part what is meant by the current phrase "commercialization of agriculture."

The cooperative selling agency performs some of the marketing functions which were formerly assumed by private middlemen, and one of the important functions taken over is that of market financing. The cooperative organization may handle its operating capital problems in any one of several ways. All of the burden may be shifted to the farmer by paying him nothing until the product is finally sold, a part payment may be advanced by the organization, or, lastly, the organization may attempt to purchase the product outright. In case the farmer bears a part or all of the burden of waiting for his pay, he is frequently compelled to borrow from his merchant or banker. In case the cooperative concern advances all or a part of the purchase price, loans are obtained from the bank on the basis of warehouse receipts. From the standpoint of farm credit, it makes little difference whether the farmer or the cooperative organization looks after the financing, for in either case the cost is taken from the sale price of the farmer's products.

Extent of Credit Transactions. Some idea of the present importance of credit in agriculture can be obtained by observing the average annual amount of money paid by the farmer in the form of interest on borrowed funds. An investigation for the year, 1923, shows that the average cash expenses for over 16,000 representative owner-operated farms in the United States were $1,575, and that $230 of this amount, or 14.6 per cent, was paid in the form of interest. The average interest bill for these farms amounted to 25.8 per cent of the net cash receipts, which averaged $891.[1]

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[1] *Crops and Markets, Supplement,* July, 1924.

A more accurate analysis, however, is that which shows the actual portion of the investment and operating capital which is borrowed.[1] That is, in the case of investment credit, it should be shown just how much equity farmers have in their farm property and the percentage of the total value which represents the loans of others. The most accurate figures on this point for the country as a whole are those of the census on farm-mortgage debts in relation to the value of farm property. The total farm-mortgage obligations for the country must be estimated, however, since the census enumerators are able to get this information only from those farmers who own the farms which they operate—about 62 per cent of all farms. Of these owner-operators, 37.2 per cent reported in 1920 that their farms were mortgaged. The percentage varies from 19.4 in the South Atlantic states to 51.8 in the West North Central states. The total mortgage obligations represent 29.1 per cent of the reported value of the farms mortgaged.

The Bureau of the Census and the Bureau of Agricultural Economics have estimated the total farm-mortgage debt for the country, in 1920, at $7,857,700,000. The total value of farm lands, buildings, machinery, and livestock was placed at approximately $78,000,000,000, by the 1920 Census. According to these estimates the total mortgage debt amounts to about 10 per cent of the total value of the investment capital of American farms. Some of the funds obtained through mortgages are diverted to uses other than the purchase of farm property, but this is probably balanced by the use of credit obtained through short-term loans for the purpose of purchasing farm property. It seems, therefore, that 10 per cent is a fairly accurate estimate of the portion of investment capital which was borrowed in 1920.

But the decrease in farm values during the years following 1920 and the continued increase in the mortgage debt have probably increased the percentage borrowed by more than 50 per cent. Thus, according to the Census of Agriculture for 1925 the total value of farm property had decreased to $57,017,740,040, while the mortgage debt of owner-operated farms increased from $4,003,767,192 in 1920 to $4,517,258,689 in 1925. If it is assumed that the total debt on all farms increased in the same proportion, *i.e.*, 12.8 per cent, the total farm mortgage debt in 1925 was $8,813,485,600, or 15.5 per cent of the total value of farm property. It appears then that there is not any appreciable difference between the relative importance of investment credit in agriculture and in industry and commerce, while the relative importance of such credit is much less in agriculture than in the railway business.

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[1] The extent to which farmers use credit instruments for convenience in exchange is not known. The above estimates made for all exchanges must suffice.

The relative importance of operating credit in agriculture is much more difficult to estimate, since no satisfactory information is available as to the annual amount of operating capital used. We have estimates of the amount of short-term credit used, but operating credit and consumption credit have been combined in these estimates. For the practical purposes of this phase of the discussion, however, these two types of credit can well be combined and considered as "credit required during the year to supply the needed capital and family consumption goods."

Some idea of the importance of the credit secured from time to time through the year can be obtained by a comparison of the amount of such credit with the annual value of all farm products. Thus the total short-term indebtedness of farmers in July, 1924, was probably about $4,000,000,000,[1] while the total value of farm products in 1924 was approximately $12,000,000,000.[2] If deductions are made from the total value figure for savings and payments on the principal of the mortgage debt, it seems conservative to estimate that 35 to 40 per cent of the total operating capital and consumption goods of American farmers for that year was borrowed.

It should be remembered that the figures presented here to show the importance of credit in the financing of governments, general business, and agriculture, have in most cases no claim to a high degree of accuracy. The estimates appear, however, to be sufficiently accurate for the illustrative purposes for which they are used. They indicate (1) that the operation of business units, governments, and farms under the present economic system is not only dependent upon the extensive use of capital, but also that much of this capital is borrowed; (2) that the interest paid on borrowed capital is a very significant item of expense to be deducted from gross annual income; (3) that credit has attained a degree of importance in agriculture comparable with that in industry and commerce.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, pp. 190 and 220.

[2] U. S. Dept. Agr., *Yearbook*, 1924, p. 1114.

CREDIT IS A PERMANENT PHASE OF AGRICULTURAL OPERATIONS

The rapid development of agriculture in this country during the past few decades with the accompanying rise in the price of land, equipment, and supplies, has resulted in an enormous increase of investment and operating capital required for each farm unit. In attempting to maintain the required capital to operate most economically, the farmer has found it necessary to borrow. The total farm-mortgage debt approximately doubled from 1900 to 1910, and doubled again from 1910 to 1920. The percentage of farms which were mortgaged increased from 28, in 1890, to 37, in 1920. Meanwhile, the ordinary bank loans to farmers for seasonal operations were rapidly increasing in number and amount.

The phenomenal growth from a nation of semi-self-sufficing farmers, using cheap land and a scant amount of equipment, to a commercialized agricultural country with many times as many dollars of capital involved has been experienced in such a short time that we have not yet fully realized the significance of the change. The increasing use of credit, which was inevitable with the increased capital requirements, has been viewed by some students of the question with a considerable amount of anxiety. It has been feared by many that farmers are getting too much credit. In fact, our whole habit of thinking has led us to look upon the farm debt, particularly the mortgage debt, as a kind of evil which is preying upon agriculture, an evil which might properly have been avoided by better management and business acumen. Strangely enough, the same attitude has not been taken in regard to the indebtedness of industrial and commercial corporations. The fact that a mortgage on the farm means a mortgage on the home may account in part for this attitude. The fact that agriculture is subject to severe temporary depressions due to seasonal conditions creates fear of losing the farm through foreclosure. Again, many farmers have lost mortgaged property because of high interest rates and certain other conditions imposed by the lender, such as the methods of repayment and the period of time for which loans are made. The overvaluation of farm lands has also been a great source of trouble for farmers with mortgages to pay. During the recent war period of high prices, there were numerous examples of overcapitalization of farm property. The period of depression and falling prices which followed the high-price climax of 1920 found many farmers unable to pay off mortgages which were placed during the preceding prosperous years. Finally, many farms have been mortgaged for consumptive or speculative purposes and lost entirely. Whatever may be the causes for the different views of the same business practice, the fact remains that the creation of bonded indebtedness is commonly looked upon by business corporations as a perfectly normal matter of business, while the creation of mortgage indebtedness by the farmer is looked upon at best as an emergency measure.

Explanation for the necessity of credit in any business is found largely, of course, in the amount of capital required by the business unit as compared with the ability of the operator to accumulate his own funds. The amount of capital necessary to build a transcontinental railway, a great manufacturing plant, an oil pipeline, or even the warehouses of a wholesale merchant, can only in exceptional cases be supplied by one individual. Such undertakings are too large to be financed by one individual. The corporate form of business organization has been devised primarily for the purpose of raising capital for such businesses (1) by inducing many individuals to come into the business, and (2) by borrowing from the general public through bond issues.

But agriculture remains a so-called "small-scale business" and, contrary to the situation in many branches of industry and commerce, the operating unit does not require the combined capital of a large number of individuals. It is true, nevertheless, that the capital required by the farmer has increased to such an extent that the accumulation of enough to own a complete farm unit has come to be practically a life-time job. The farmer who started out 40 years ago secured land which was free or at least very cheap. He has accumulated his present wealth largely through the increase in values of land since that time. Although the farmer starting out today may accumulate more within 40 years than did his predecessor, he must use different methods. His first big hurdle will be the accumulation of sufficient funds for an initial payment on a farm. The second achievement will be to hasten his productive powers by obtaining ownership through the aid of credit. That more farms are mortgaged today than formerly is by no means an indication that agriculture is poverty stricken. Observation shows that it indicates primarily that farming is a bigger business, that more capital is necessary to succeed. In fact, the actual equity which the farmer has in his mortgaged farm may be greater than the total value of the same farm two decades ago.

Generally speaking, this is a period of transition from extensive to intensive agriculture. The farming business is characterized by higher land values and a more intensive use of land by the use of more equipment and labor. At any given stage in the development of agriculture, there is what is known as the most satisfactory economic unit of operation. In wheat farming at the present time in this country, for instance, several hundred acres of land, a considerable amount of plowing, seeding, and harvesting machinery, a truck or several draft horses, and several buildings are necessary if the farmer is to be a successful competitor in growing wheat. Forty years ago he might have been quite as successful with less equipment, certainly with a smaller total investment. Forty years hence the wheat farmer may have to use still more machinery and equipment to be successful.

As this "most economic unit," in terms of the total investment, becomes larger, and as the funds needed to employ labor and to buy supplies increase, the normal credit needs become greater. Financing is done on a much larger scale than formerly, yet our ideas about agricultural finance are based largely upon the agriculture of the later decades of the nineteenth century. The emphasis should be shifted from the fear of farm indebtedness to an analysis of the costs and the proper use of credit.

Questions and Problems

1. What is the distinction between exchange credit and operating credit?
2. Explain why credit was indispensable in the development of our capitalistic system of production.
3. Show why farmers need more investment credit than they did 50 years ago.
4. Explain the relation between specialized agricultural production and the farmer's operating credit requirements.
5. Compare the credit requirements in agriculture with those of industry and commerce, the railroads, and the government.
6. Do you expect the total farm indebtedness in the United States to increase during the next few decades? Explain.

7. The increasing percentage of mortgaged farms is often given as evidence that the economic status of agriculture is on the decline. Discuss.

8. Does a decrease in the percentage of equity which farmers have in their property indicate a decline in the economic status of agriculture?

9. Why should the cost and uses of credit be emphasized rather than the amount used?

References for Further Reading

BLISS, JAMES H., "Financial and Operating Ratios in Management," Chap. 23.

ELIOT, CLARA, "The Farmer's Campaign for Credit," Chaps. 1, 2, and 4.

MAGEE, J. D., "An Introduction to Money and Credit," Chaps. 2 and 3.

MORMAN, JAMES B., "Farm Credits in the United States and Canada," Chaps. 4 and 5.

MOULTON, H. G., "The Financial Organization of Society," 2nd ed., Chap. 7; or 1st ed., Chap. 9.

U. S. Dept. Agr., *Yearbook*, 1924, pp. 185–256.

WRIGHT, IVAN, "Farm-mortgage Financing," Chap. 1; "Bank Credit and Agriculture," Chaps. 1 and 2.

PART I

THE INVESTOR

The billions of dollars of credit which farmers use originate with the investors of the country. On the whole, bankers are only middlemen between the ultimate investor and the borrower. The ability of bankers to supply an adequate amount of agricultural credit and the conditions under which loans are made are dependent in the last analysis upon the investor. In Part I the conditions under which credit originates and the factors which determine the direction of the flow of credit will be considered.

CHAPTER II

SOURCES OF CREDIT

A cross-section of the business units of any industry at a given time will show that certain of the businesses are in need of immediate purchasing power with which to obtain certain material goods or labor. Similarly, a cross-section of the incomes and expenditures of all individuals and businesses of the country will show that certain of them have more immediate purchasing power than is needed for their own purposes, either for consumption or for production. It was indicated above that on a certain date the farming business units of the country actually owed some twelve billion dollars because they had borrowed such purchasing power some time in the past. Now, the inquiry shifts to a consideration of the circumstances surrounding the origin of these surplus billions of purchasing power.

For descriptive purposes, the total available credit of the country at a given time may be thought of as a pool of *loanable purchasing power.* The pool may be divided into two rather distinct compartments: (1) purchasing power which owners desire to lend for a considerable period of time, *i.e.*, with which they desire to make what are ordinarily called "permanent investments"; (2) purchasing power which is available only for temporary loans.

1. SOURCES OF INVESTMENT CREDIT

There are two distinct sources of supply for the "permanent investment" section of the pool of loanable purchasing power: (1) the great flow of current savings of individuals and business concerns; (2) the intermittent flow of old savings, or accumulations, of individuals and business concerns which are ready to be reinvested from time to time.

Current Savings of Individuals.—The current savings of the individual may be a part of a wage, a salary, or the income from investments. Upon receiving such income, the individual may spend it for his immediate enjoyment, or he may set aside a part or all of it as a basis for future income. Thousands and thousands of salaried people and wage earners annually choose to set aside a part of their incomes and, since many of them are not in position to go into a business of their own, they add their savings to the pool of loanable purchasing power.

The individual may lend his savings directly or indirectly. The latter practice is illustrated by the payment of life insurance premiums. Since life insurance is becoming a very popular means of investment, a large amount of savings is annually "stored up" on the installment plan through the payment of premiums. The enormous growth of the business of insurance companies and the necessity of their maintaining large surpluses have made them an important source of the country's investment credit. These companies are among the largest farm-mortgage investors in the country.

In addition to wages and salaries, income from investments is an important source of the current savings of individuals. Included here is the annual or semi-annual income from bonds, mortgages, and stock. Legally, stockholders are owners of the business rather than lenders or creditors, but, actually, in most cases only a few of the larger stockholders of corporations actively direct the policies of the business. Hence, stockholders are classified here as lenders, or creditors, along with bondholders and mortgageholders, and the income from stock is considered individual income rather than business income.

Current Earnings of Business Concerns.—The second great stream of current savings originates in the current earnings of business concerns. This classification includes all business units, from the individual farming or merchandising unit to the great corporation, and is distinguished from individual savings in that the income arises not from a wage, or a salary, or the interest or dividend from the investment of a passive investor, but from the active management of a business. In the case of the corporation, it is that part of the net earnings of the business which is not distributed as dividends to stockholders. According to the National Bureau of Economic Research, the corporations of the country distributed, from 1909 to 1919, an average of only 61.4 per cent of their net earnings.[1] The earnings which corporations set aside as surplus (savings) have been estimated at about one-half of the total savings of the country.[1] Such corporate savings may either be applied in expanding and improving the business, or they may become available for loans to other concerns. A glance at the balance sheets, particularly of the older and larger corporations, will show investments in the stocks and bonds of other concerns. Investments in the stock of other corporations may be made primarily for the purpose of gaining partial control of their policies, but the investments in bonds, in particular, are usually made for the purpose of accumulating a sinking fund for the payment of the bonded obligations of the investing corporation.[2] Moreover, a part of the current earnings of the corporation is frequently set aside with the view of expanding the business at some future date. In the meantime, these funds are invested in securities to mature at times appropriate to the requirements of the business.

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[1] National Bureau of Economic Research, "Income in the United States," Vol. II, p. 327.

The current earnings of thousands of the smaller individual and partnership business units of the country are an important source of credit. Practically all farmers and the great majority of the retail merchants of the country are included in this classification. The earnings of the merchant are probably most commonly absorbed in paying living expenses and in expanding his own business, but many of the more successful merchants regularly make investments outside their own business. In the case of the farmer, it seems to be the general opinion that current earnings are ordinarily entirely absorbed in paying living expenses, improving the farm, and paying off mortgages. This view overlooks a large number of our farmers who supply a significant part of the investment credit for agriculture by lending to neighbors or by investing in farm mortgages in other sections of the country. This applies more particularly to the farmers in the older and more stable farming areas.[3]

Another class of businesses which supply from current earnings a large amount of investment credit includes the so-called "professional businesses," such as those of physicians and lawyers. They differ from the businesses discussed above in that their income is derived from the rendition of personal service rather than from producing or merchandising actual material goods. From the standpoint of investment possibilities, they differ further in that the capital requirements of their businesses are rather strictly limited. The necessary office equipment is not very extensive. These businesses are expanded chiefly upon the basis of skill in rendering service rather than upon the amount of capital which is invested. They are thus rather strictly limited to the alternative of applying their savings in outside investments.

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[1] King, W. I., *Journal of the American Statistical Association*, December, 1922.

[2] During 1928, an enormous volume of loans was made by corporations through New York banks to brokers in the securities market, due to the unusually high rates offered. See *Federal Reserve Bulletin*, December, 1928.

[3] See article by Clara F. Wigder on "Farm-mortgage Interest Rates," *The Journal of Land and Public Utility Economics*, Vol. I, pp. 102–117.

Old Savings Ready for Reinvestment.—In addition to the current savings of individuals and business concerns, a very considerable part of the currently available investment credit arises in the process of the reinvestment of past savings. As bonds and mortgages mature, as stocks are sold, as property is sold, or as gifts and endowments are received, a new source of loans arises. It should be remembered, however, that this reinvestment seldom means an addition to the country's total pool of loanable purchasing power, since the individual or business organization which pays for the bond, stock, property, or makes the gift, has withdrawn the same amount from the general pool of purchasing power. But, from the standpoint of any given industry or individual, the returns from the matured investment or from the sale of property become a source of credit.

Probably the largest single source of investment credit for agriculture is the farmer who sells his farm for part cash and takes a mortgage on the farm for the remainder of the sale price. The farm represents the stored-up savings of the seller and, in the process of sale, a part of his savings have been immediately invested in a farm mortgage. It is in this way that farmers make their chief contribution to the supply of investment credit required within the industry.

2. SOURCES OF OPERATING CREDIT

The source of supply of the operating-credit section of our pool of loanable purchasing power centers largely in our commercial banking system. The retail merchant often extends credit to the customer directly, but he is able to do this largely because he can obtain loans from the bank, or from the wholesaler who in turn borrows from his bank. Some business concerns occasionally make short-term loans directly from their own earnings, but this practice is exceptional, especially in the case of the smaller business units. The larger corporations under certain circumstances invest a part of their earnings in short-term securities with a view to expanding their business in the near future.

The primary source of the lending power of commercial banks is the deposits of customers who for convenience and safety have temporarily left their funds in the keeping of the bank. The original source of loanable purchasing power here is the savings and accumulations of individuals and business concerns just as is the case with investment credit. The only real difference is that the owner does not care to have his savings tied up for a long period of time. His funds are always available for his use upon demand or at the end of a short period of time agreed upon.[1]

The other source of lending power of the commercial banking system is the capital and accumulated earnings of the banks. While ordinarily a large part of the capital stock is represented by investments in real estate, buildings, and equipment, the remainder is available for use as a basis of loans. The past earnings of the bank, whether in the form of surplus or undivided profits, have the function of strengthening the bank's position in serving its borrowing customers.

INCREASING THE TOTAL SUPPLY OF LOANABLE PURCHASING POWER

Saving is the only real source of capital creation. Moreover, saving is the only source of supply of loanable purchasing power, whether the loans be used to purchase capital or consumers' goods.

1. Increasing Savings

To illustrate the fact that an increase in the savings of the people of the country may result in an increase in the production goods, or capital, of the country, let us take the case of the savings of a wage earner in a machine shop. If he receives wages amounting to $1,500 per year and saves $500, he has saved purchasing power which, instead of being used by himself to buy goods to consume, may be used to buy stock in the company. The company, in turn, may use the new purchasing power to buy equipment or to expand the plant. Or the laborer may deposit his $500 in a savings bank. The bank then in turn may lend it to some business concern which desires to purchase new capital. In either case, the purchasing power created by the laborer is used to buy capital instead of consumption goods. The demand for capital goods, such as raw materials, building materials, and machinery is increased by $500. This results in an increase in the country's supply of production goods.

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[1] Strictly speaking, of course, funds left on deposit with the bank are not savings in the sense that funds placed in a savings account are. The ordinary deposit is made for convenience, but, fundamentally, such deposits which are not the direct results of loans do represent a surplus of production over consumption and they are savings.

The savings of the country may be increased (1) by decreasing consumption, (2) by increasing efficiency in production, or (3) by a combination of these two methods. In considering these means of increasing savings the above classification of the sources of savings into individuals and business units will be used. Probably the greatest possibility of increasing the savings of the business organizations of the country lies in the ability to increase the use of machinery in production and to reduce the costs of retail merchandising.

Since the loanable savings of the country come chiefly from the surplus earnings of individuals, this phase of the subject will be taken up in greater detail. In the case of the individual, the most effective method of increasing savings is to forego spending. Of course, the individual may so increase his efficiency that his income will be greater, but the possibilities for a great amount of increase in the incomes of all the individuals in the country are rather strictly limited.

The fundamental motives of the individual in saving are (1) to accumulate sufficient funds to go into a business of his own at some future date, and (2) to be comfortably supplied for a "rainy day" or for old age. The amount of savings which result from these individual motives is greatly affected by the extent of the opportunities for investment. Whether the individual is saving for a future business of his own or saving to be able to live comfortably in old age or to leave some means of support for his dependents, good investment opportunities are an inducement to saving. These motives are sufficient to cause many people to save without the supplementary incentives of investment possibilities. In fact, some individuals are so impressed with the desirability of being financially independent that they would save even if they were compelled to pay a premium for the safekeeping of their savings. But there is a tendency, even among the most thrifty, to save more in case someone can be found who is willing to pay an attractive rate of interest for the use of the savings and give assurance of their return in the future.

From the standpoint of the individual investor, the investment opportunities of the country might be improved in five distinct ways: (1) by offering a higher interest rate for savings; (2) by increasing the safety of investments; (3) by adapting investments to the requirements of investors; (4) by increasing the amount and the accuracy of information available to prospective investors; (5) by increasing the availability of investments.

Increased Interest Rates.—The amount of interest which is actually paid varies greatly among different investments because of the variations in the attractiveness from the standpoint of safety, adaptability to investors, etc., but at any given time money is said to be worth a certain annual rate of interest. This is what is sometimes called "pure interest," *i.e.*, the value of a loan for a year excluding the element of risk and the costs involved in making the loan. That is, pure interest is the premium which borrowers are willing to pay to get money now rather than wait till a later date.

This level of pure interest in the country may be raised by increased prosperity in business. A good example of the general increase in interest rates is that of the recent war period. Business opportunities were good, and a loan was actually worth more than in time of depression or even in periods of normal business. Profits were greater. Business men were anxious to use more capital in order to increase their profits. As a result, higher interest rates were offered.

The level of interest rates is determined at any given time by the demand and supply of loanable funds. In 1921, for instance, business conditions were such as to prevent expansion and hence the demand for loans was not very great. Consequently, interest rates decreased.

Increased Safety.—The degree of safety greatly affects investment opportunities and, therefore, the amount of saving. Here, again, there are all degrees of safety among the different investments of the country, but there are certain underlying influences which affect the general level of safety of investments at any given time. Investments in any country are affected by the power and stability of its government. Frequent changes in governmental policies are detrimental to capital accumulation. One of the functions of any government is to protect the property rights of citizens, and, if the government is unstable, there is irregular protection of these rights. Observe the present anxiety of investors in properties in Mexico, also the timidity of foreign investors in Russia.

The degree of safety of investments is also affected by the specific policy of the government in regulating business. The government may interfere with business to such an extent as to discourage investments. On the other hand, government supervision can be a great stimulus to savings and investments. Such is the case in the government supervision of our banking system, the trust companies, and building and loan associations. One of the chief attractions of investors in the stock of building and loan associations in certain states is that they are supervised by the state government. Savings banks are generally strictly supervised with the avowed purpose of protecting the savings of small investors. The constant government supervision of the commercial banking system has done much during the past 50 years to encourage the individual to have checking accounts with the banks.

The level of safety of the investments of the country is also affected by general business and financial conditions. The safety of all investments is affected by the upward and downward swings of the business cycle. During periods of prosperity, there is a greater degree of certainty in the regular payment of interest or dividends and the full repayment of the investment. But the general level of safety of investments running over long periods of time, say 30 to 100 years, depends fundamentally, aside from conditions of the government, upon the business ability of the people of the country and the natural resources with which they have to work.

Adaptation of Investments to Investors.—The investment opportunities of the country might be enhanced by the better adaptation of investments to the investor. For instance, if individual investors were able to make investments at the time and in the amounts most suited to their convenience there would be an added inducement to save, aside from any increase in interest rates or increase in safety. Financial institutions have long known of these inducements to investors. It has become common in the sale of bonds to divide them into denominations sufficiently small to attract the smaller investor. Savings banks have a particular attraction in the policy of accepting any amount at any time. Building and loan associations, as well as many of the leading investment banks, have already increased the attractions of their investments by providing for payment on securities in small amounts at regular specified intervals adapted to the investor's receipt of income. The amortization plan of repayment of farm mortgage and city real-estate loans is based upon the same principle of adjusting payments to income.

Another very important step in the adaptation of the investment to the requirements of the investor is that of providing a ready resale for the investment. The attraction of "marketability" is very real to the investor. The individual often hesitates to invest at all because of the uncertainty of being able to "cash-in" on the investment at any time that he may need the funds in his own business or for his own personal use. Thus, most of the investment banks and mortgage companies offer, as a special inducement, to attempt to resell the bond or mortgage upon request. Building and loan associations usually permit the investor to withdraw his stock at par on 30 or 60 days' notice. Of course, the most important ready market for the resale of securities after they have been issued and sold to the public is the stock exchange. The investment bank often proudly announces to prospective investors in a particular security that it is expected that the issue will be placed upon the New York Stock Exchange or some other important exchange of the country. The important stock exchanges are limited, however, to a relatively few securities when the total stocks and bonds outstanding in the country are considered. The "curb" market has developed as a supplement to the regular stock market. It handles certain securities which do not meet the requirements of the regular exchange or whose applications for admission on the regular exchange are yet pending.

More Investment Information.—Probably the greatest handicap the individual investor experiences is his lack of knowledge of investments. He not only lacks knowledge of the existence of investments which are well adapted to his particular needs, but he often lacks the ability to distinguish between good and bad investments.

The total savings of the country would doubtless be increased if prospective investors were supplied with information regarding the existing investment possibilities which are available. The local banker is the chief adviser for the community in all matters of finance, and his advice is usually sought in investment matters. This phase of the banker's business has become so important that many of the larger banks have established investment departments. The great bulk of the banks of the country, however, have no such departments.

For the ordinary investor, it is difficult to distinguish between a safe investment and a speculative investment. For him the financial statement of the business corporation is nothing short of an abstract puzzle. The actual analysis must be made by specialists, such as investment banks (bond houses) and real-estate mortgage companies. Investors often fail to realize the complexities of modern business and, therefore, the necessity of a careful analysis of the business of the concern issuing the securities. Moreover, many of the smaller investors have yet to learn that a safe investment should be sought, even if the yield is low. Millions of dollars are lost annually by small investors through the practice of investing in highly speculative securities with the hope of enormous dividends. Losses through the purchase of oil stocks in this country during the past 10 years have done much to prejudice the minds of many investors against making investment in any type of securities. This tends to discourage saving.

The so-called "blue-sky" laws in some of the states are attempts to prevent misrepresentation in the sale of securities and to reveal to the investor the real nature of the available investments. Also, the federal government has been active in preventing the misrepresentation of securities. A number of prosecutions have recently been made against the fraudulent use of the mail to induce unsuspecting investors to buy spurious stocks. The federal and state governments can do much to eliminate the more obvious cases of fraud and misrepresentation, but it seems that the more fundamental and permanent cure for this evil is the education of the investing public. The smaller investors, in particular, need (1) to be able to distinguish broadly between a conservative and a speculative investment, (2) to realize the necessity of avoiding the more speculative investments, and (3) to realize the desirability of seeking expert advice.

Something is being done on such an educational program in this country at present. Many reliable periodicals which are widely distributed over the country regularly set aside a certain space for discussions of the investment problems of subscribers. Some magazines even recommend specific investments for the subscriber on the basis of a description of his particular financial situation. Private organizations, such as that of Brookmire, Babson, and the Harvard Economic Service, specialize in the study of business conditions and give advice to their clients concerning investments. Many investment banks, or bond houses as they are usually called, follow a well-defined policy of instructing their clients in the general principles of investment, as well as that of assisting the prospective investor in the process of analyzing specific securities. All too frequently, however, there is less of general training in the principles of investment and more of recommendation of the particular securities which the bank is undertaking to sell to the public.

Make Investments Available.—The fifth great factor which affects investment opportunities and, therefore, the amount of savings of the country is that of the availability of investments. An excellent illustration of the situation among the smaller investors of the country is shown in recent experiences of the Bell Telephone Securities Company. This company was organized by the American Telephone and Telegraph Company primarily for the purpose of aiding its own employees and other small investors of the country in becoming its owners. David F. Houston, president of the Bell Telephone Securities Company, makes the following comments concerning the experiences of the company:

> At the beginning, in the work of aiding small investors to secure stock of the American [Telephone and Telegraph] Company in the market, they were told that they could secure the aid of bankers and brokers and purchase the stock through them. It soon developed that very few people had experience in dealing in securities, and had few or no banking connections or experience. People of small means generally are not only unacquainted with investment processes, but they are shy of such an undertaking. They began to ask whether they could not secure stock directly through the telephone employees. Plans were, therefore, made under which they could have their orders taken by telephone employees and executed by the Securities Company, the company buying the stock in the market at the prevailing price, paying the

> brokers the normal commission, and charging nothing for its own services.
>
> The work of aiding small investors to become owners of the Bell System has confirmed a number of impressions. It has strikingly emphasized several things. It has brought out sharply the facts that there are vast numbers of people who have saved part of their earnings and who are willing to invest it; that they will invest it in good things if they can, but at any rate they will invest it; and that, in the large, machinery has yet to be developed which can or can afford to reach the hundreds of thousands of small investors whose aggregate savings are large.
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> There has also been further developed the fact that there are large numbers of people in the Nation who work and save money, but make no use of it whatever—not even depositing it in a bank, but hiding it away.[1]

Savings which are not invested by the owner in his own business ordinarily take one of the following forms: demand or time deposits with the bank, savings accounts, an insurance policy, a real-estate mortgage, stocks, bonds, short-term notes of corporations, or the promissory note of an individual. There is little or no difficulty involved in finding an investment for savings if a demand deposit account is sought. Banks are sufficiently accessible in all parts of the country for the needs of any individual for the safekeeping of his funds. But demand deposits usually yield no return and are very easily spent. Many bankers do not accept interest-bearing time deposits. Approximately one-fifth of the "country" national banks[2] do not accept savings deposits.[3] Moreover, a very large portion of the people of the United States do not have direct access to regular savings banks, since about 96 per cent of the mutual savings banks in the country are concentrated in the Eastern and New England states, and 86 per cent of the stock savings banks are located in the state of Iowa.[4]

A very large part of the annual savings of individuals of this country is used up in the payment of insurance premiums.

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[1] *The Outlook*, Jan. 20, 1926.

[2] This includes all national banks in towns having a population under 25,000. Also it includes banks in larger cities which prefer to be designated as country banks.

[3] Comptroller of the Currency, *Ann. Rept.*, 1924. The percentage of national banks which do not accept savings deposits varies from about 5 per cent in Virginia to about 70 per cent in Texas.

[4] Comptroller of the Currency, *Ann. Rept.*, 1924.

Life insurance has been so well advertised through personal solicitation and through the experience of policyholders that it is accepted today as a purely business proposition by most people. Insurance offers an excellent opportunity to individuals with small incomes to accumulate something for their own use in old age or for the use of their dependents. If all our facilities for finding investments for savings were working as efficiently as are the insurance companies, there could scarcely be any question of their adequacy.

Stocks, bonds, and real-estate mortgages are made available to investors chiefly through (1) advertisements, (2) personal solicitors, and (3) local financial institutions. The advertiser and the personal solicitor are ordinarily biased, and the investor is handicapped in selecting investments from brief advertisements or in buying from a clever personal solicitor. His safety in the use of either of these methods lies largely in his knowledge of the reputation of the concern which is offering the security. There are a number of nationally known investment houses and mortgage companies whose reputations for fair dealing are such that the investor can safely accept their securities, but the difficulty here is that the small investor in an out-of-the-way place has little opportunity to know of the more reliable investment institutions of the country.

2. The Fallacy of the "Money Factory"

Unfortunately, the opinion is widely held that the government or the banks can increase the amount of credit at will by increasing the amount of money in circulation. The government and the banks issue all our money, and to the great masses who are not familiar with the basic principles of money and credit it appears that the government and the banks are responsible when credit is not available in the desired quantities.[1] That is, to the popular mind the supply of credit depends largely upon the extent to which the "money factory" is employed rather than the relation between production and consumption of all economic goods and services. Loanable purchasing power according to this view seems in some mysterious way to be stored away in the government printing office which issues paper money and has no connection with the process of saving described above.

[1] See Eliot, Clara, "The Farmer's Campaign for Credit," Chap. 1.

The belief that an increase in the amount of money in a country means *per se* an increase in general welfare—an increase in economic goods and services—involves what is probably the most elusive fallacy which has been discovered in economic thought. The doctrines of the Mercantilists of the sixteenth, seventeenth, and eighteenth centuries were based largely on this fallacy. Nor has the fallacy disappeared in the nineteenth and twentieth centuries. It is still very commonly held. This fallacy seems to be based on two things: (1) the fact that an increase in the amount of money in the hands of one individual does actually mean that he has greater purchasing power, provided that the total amount of money in the country has not increased in the same proportion, and (2) the fact that money is merely a means to the acquisition of goods and services. If an individual who has $1,000 obtains another $1,000 his power to buy goods and services is ordinarily doubled, but if the total amount of money in circulation in the country is increased 100 per cent it does not follow that the purchasing power of the country is doubled, since prices tend to rise when the amount of money is increased faster than the amount of actual goods and services exchanged.

The history of this country is replete with examples of the money-factory fallacy. The "free-silver" campaign of the 'nineties was based largely upon the idea that the country would become prosperous automatically if we could only get more money into circulation. The agitation for a more liberal policy of issuing federal reserve notes during the depression following 1920 was partially based on a similar fallacy. Certain representatives of the farming interests, for instance, maintained that the agricultural depression was due chiefly to an insufficient expansion of the currency.

Money *versus* Purchasing Power. The economic welfare of a country depends upon the ability of the people to purchase economic goods and services, and this ability is not accurately measured by the amount of metallic money in the country. Our supply of gold coin and bullion in 1914 was $1,890,656,791 and in 1924 it had increased to $4,490,807,303, while the amount of paper money in the United States was increased from $1,097,352,915, in 1914 to $3,474,336,995 in 1924.[1] It is obvious that there was no corresponding increase in the available economic goods in the country. The fact is that the country was in poorer economic condition immediately after the war than it was before the war. All this is apparent, but somehow in our everyday thinking we overlook the important fact that from the standpoint of the country as a whole more money does not necessarily mean more goods or more purchasing power. The confusing thing is that a dollar will not always buy the same amount of goods. If it takes $1.50 now to buy what $1 would buy in 1914, a 50 per cent increase in the amount of money would mean nothing in the way of increased purchasing power.[1] The fact that the general price level of goods tends to go up concurrently with an increase in the amount of money in use makes the dollar an unstable measure of actual purchasing power. And in connection with this discussion of the country's pool of loanable purchasing power, it must be remembered that this purchasing power is accurately measured from time to time only in terms of goods and services. That is, in reality the loanable pool is made up of surplus goods and services, and money and credit serve only as a means of transferring these goods and services to the actual users.

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[1] Secretary of the Treasury, *Ann. Rept.* on the State of the Finances, 1924, p. 421.

The Individual Point of View.—The other important basis for the fallacy that an increase in the money supply of a country means an increase in economic welfare is that the question is usually analyzed from an individual point of view. The obvious fact that the receipt of money increases the individual's purchasing power is taken to mean that an increase in the amount of money in the country would mean an increase in the purchasing power of the people of the country. But since the price of goods (general price level) may be increased by increasing the amount of money in circulation, a greater total volume of money does not necessarily mean an increase in the actual purchasing power of the people.

When the individual receives purchasing power in the form of money he is taking purchasing power away from someone else. Likewise, when a bank in one section of the country receives money from a bank in another section, the purchasing power of one section is increased only at the expense of that of the other section. They are simply receiving the savings of others. Those on the receiving end of such transactions have observed the wonderful results and have thought it would be wonderful for the government and the banking system to provide all sections and all individuals with an adequate supply of money.

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[1] As a matter of fact, the general price index did change from 100 in 1914 to approximately 150 in 1924. But it will be observed that the amount of money increased by more than 100 per cent. This would seem to indicate a large increase in actual goods and services. It must be remembered, however, that a very large percentage of our gold supply in 1924 was used merely as surplus reserve and was not needed as a basis for paper money.

Higher general price levels are not always associated with an increase in the amount of money of the country. As the volume of business done in the country increases, more money is needed as a basis for the credit system.[1] Moreover, an increase in the amount of money under such circumstances does not in itself increase the loanable purchasing power of the country. It rather acts as a tool for the transfer of lending power already in existence. It gives money form to savings.

CONCLUSION

Credit has its origin in the savings of individuals and business concerns, whereas, popular opinion seems to indicate that it arises from some mysterious source. The layman is confused by our complicated banking and currency system. Credit is, in reality, borrowed purchasing power, and purchasing power, in the last analysis, is based on goods and services. If the country as a whole is to have more loanable purchasing power, more saving must be done; if a particular industry, such as agriculture, is to have more credit, it must compete with other industries for the available purchasing power of the country.

Questions and Problems

1. Give illustrations of bank-loan policies which are based on the conditions and requirements of the original investors who supply the bank with funds.
2. Explain how credit directs the capital and, therefore, the production of the country.
3. Distinguish between the sources of investment credit and operating credit.
4. How is the farmer affected by the total amount of savings in the country?
5. Describe several methods by which individual savings could be increased. Whose function is it to apply these methods?
6. Explain the "money-factory" fallacy.

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[1] Also, there may be a temporary increase in purchasing power through an increase in the supply of money, even though the demand for goods has not increased, due to the lag between the increase in the money supply and the rise in the price level.

References for Further Reading

JORDAN, DAVID F., "Investments," Chap. 1.
KIRSHMAN, J. M., "Principles of Investment," Chaps. 1, 2, and 12.
LOWENFELD, HENRY, "Investment Practically Considered," pp. 132–155.
LYON, HASTINGS, "Investment," Chaps. 2 and 3.
MEAD, E. S., "The Careful Investor," Chaps. 4–6.
MOULTON, H. G., "The Financial Organization of Society," 2d ed., Chap. 4; or 1st ed., Chap. 5.
RICE, SAMUEL O., "Fundamentals of Investment," Chaps. 1 and 2.

CHAPTER III

THE DIRECTION OF THE FLOW OF CREDIT

The analysis of agricultural-credit problems involves a consideration of the basic forces which direct the credit of the country. Farmers attract loans in proportion to the specific inducements offered to investors. If farmers and farmers' banks are unable to offer as attractive investments as are manufacturers and merchants, it is normally to be expected that the latter will have the advantage in competing for credit.

Many of the factors which affect the size of the country's pool of loanable purchasing power are likewise effective in determining what business concerns and industries will be most favored with loans from the pool. Factors which are particularly effective in directing the flow of credit are the relative interest rates and safety of investments in the various industries and the degree of development of the financial machinery serving the different industries.

It may be observed frequently that one industry pays a higher rate of interest than another and yet has greater difficulties in obtaining credit. Upon closer observation, it will likely be found that investments in the former industry are not as safe, or that the banks or other financial organizations serving it are not as efficient in obtaining loans. Take, for example, the case of long-term loans in agriculture prior to the creation of the federal farm loan system in 1916. Most of these mortgage loans were yielding the high rates of 7 to 10 per cent, yet conservative loans on agricultural lands had long been considered comparatively safe. The real explanation of this situation lies in the fact that no adequate and efficient farm mortgage banking system existed and, in order to attract loans, interest rates were kept at a higher level than those in other industries.[1] In order to avoid confusion of thought in the study of the influence of interest rates, safety, and financial machinery upon the direction and rate flow of the loanable pool, each of these factors will be considered separately.

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[1] There were some cases in which farm-mortgage loans were obtained at lower rates than were similar loans in other industries. This situation seems to have prevailed in certain of the most highly stabilized farming districts, such as those in southern and eastern Wisconsin. Usually the loans were made by neighbor farmers or banks in the nearby towns. See

RATE OF RETURN AND THE DIRECTION OF CREDIT

In many instances, the rate of return is clearly the primary factor in attracting loans. This is notably the case in the sale of the more speculative securities, such as oil and mining stocks. The slightest possibility of a high rate of return has induced millions of people to invest in such securities in preference to the less speculative investments which yield a lower return. Large elements of American investors are particularly noted for seeking investments which promise unusually high rates.

Aside from the fact that we invest millions and millions annually with the hope of exceptionally high returns, there are numerous examples to show the effect of only a slightly higher return upon the direction of investments. The recent enormous flow of credit to the automobile industry[1] is based upon the payment of relatively high rates as compared with the railroads and other of the older branches of industry. Stocks in automobile companies have been sold readily while the railroads were begging for a market for their bonds. The automobile finance company, designed to finance the sale of automobiles to the public, has had a phenomenal growth since 1920, due largely to the large dividends which they are able to pay. People are so anxious to have cars that they are willing to pay an unusually high rate of interest in order to be able to get cars now and pay for them later. Business men with capital and initiative have been quick to sense the opportunity of financing automobile buyers by paying the local dealer and accepting the buyer's note for a large share of the purchase price of the car. The buyer pays for the car by installments extending over one or two years. These loans ordinarily yield from 10 to 15 per cent and, consequently, finance companies have been able to attract enormous investments within a very short period of time.

Clara F. Wigder, "Farm-mortgage Interest Rates," *The Journal of Land and Public Utility Economics*, Vol. I, pp. 102–117.

[1] The amount used in 1923 in the retail financing of automobiles has been estimated at more than $1,000,000,000. See Henry G. Hodges, *The Annals*, November, 1924.

Effect of Tax Exemption.—It should be mentioned here that the exemption of a security from taxation has exactly the same effect as raising the interest rate. The extent of the advantage which tax exemption gives at any given time is determined by the particular tax system which is prevailing. During the first few years following the recent war, the income tax paid by individuals with large incomes was sufficiently burdensome to put a great premium on tax-exempt securities. There were a few cases in which the investor's income tax was so great that the yield of a government (tax-exempt) bond at 4½ per cent was equal to the net yield of stock in the ordinary corporation which paid a 10 per cent dividend.

Appreciation in Value.—Closely connected with the question of the influence of attractive interest rates in directing credit is that of the appreciation of the value of securities. If investors feel that the market value of a bond or stock is likely to increase in the future this will be an added attraction. In the case of common stock, this will mean additional dividends as well as an increase in the sale value of the stock, whereas, in the case of bonds, mortgages, and preferred stock, it simply means an increased sale value.

INFLUENCE OF SAFETY ON DIRECTION OF INVESTMENTS

Safety is of primary significance to many investors. High interest rates are of course desirable, but for many investors certainty is more desirable. The investor is interested in two phases of safety in investments: (1) the certainty of repayment of the principal, and (2) the certainty of the regular payment of interest or dividends. The common stock of a particular corporation may be fundamentally a sound investment while the payment of dividends is quite irregular. It may yield good dividends when they are averaged over a long period of years, but the financial condition of many investors is such that they cannot afford to forego the yearly return on their capital. Such investors are willing to forego a higher return in order to be certain of a regular return.

Safe Investments.—The certainty of regular payment of interest and the full repayment of the principal of the loan is ordinarily the primary attraction of government bonds. The interest rate paid is usually considerably lower than that on industrial bonds or, for that matter, the securities of any private industry. Of course, it may be maintained that many investors buy government bonds partly because of the ease with which they can be sold. Indeed, this is true, but the marketability of these bonds is based largely upon the wide recognition of their safety.

Millions of dollars are being invested today in the stock of the building and loan associations of the country, and safety is one of the leading attractions. The safety of investments with these associations is based upon conservative loans on real estate under the general supervision of the state governments. The selling agent never fails to emphasize the fact that his association makes loans only on the "best security" and these are generally limited to one-half or two-thirds of the value of the real estate which secures them. Also, he usually emphasizes the fact that the state banking department periodically examines the business of his association.

Investors Who Require Safety.—Insurance companies, trust companies, savings banks, and endowed institutions seek safety as a primary requisite in their investments. These insititutions are responsible to large numbers of smaller investors and must necessarily use extreme care in the investment of funds intrusted to them. The failure of a life insurance company to pay one policy would jeopardize its future business. The importance of the safety element in the investments of savings banks and trust companies is so well recognized that many of the states have laws restricting them to certain types of investments. Educational and other endowed institutions seek safe investments. They depend upon the current income from investments to pay a part of their expenses of operation and must be assured that payments of interest will be made regularly.

There are many individual investors who emphasize safety more than they do the rate of return. Included here are those individuals who depend upon the income from investments for a livelihood. Persons who have retired from active business ordinarily come in this class. Also widows, minors, and others who do not care to make their own investments are usually advised to place their funds in safe investments. Then there is a great group of the more thrifty individual investors who are not tempted by the extraordinary possibilities of speculative investments. They are by nature conservative, or they have become conservative through experience. They follow the age-old motto that a bird in the hand is worth two in the bush. They invest in government bonds, farm mortgages, public utility bonds, or the more highly recommended industrial bonds.

Safety and Distance.—Another important consideration which is closely related to safety in directing the flow of loans is the location of the borrower in relation to the investor. We have been assuming that the loanable purchasing power of the country is concentrated at one place. In reality, there are thousands of pools scattered all over the country. They vary in size from the few pennies in the pocket of the boy on the way to his savings bank to the enormous lending power of our largest financial institutions. The pools are larger and more numerous in those sections where population is most dense and where business or agriculture is most prosperous. They are smaller and less numerous in the newer and poorer sections of the country. Savings arising from commercial activity are naturally centered in the larger cities, chiefly those north of the Ohio and east of the Mississippi rivers. Savings arising from farming are similarly found chiefly in the older and better farming sections—in the Middle West and the Central Atlantic states.

To some investors and with certain types of investments distance makes little difference, but the location of the investment is very significant in many cases. Some investors have sufficient confidence in the recommendations of the financial agency which is placing the loan that it would make little difference whether the business for which the credit is needed is located in Pennsylvania or California, while others who have no such reliable agents would probably require an interest rate of 1 or 2 per cent more in one place than in the other. Many individuals would much prefer actually to see the farm or the plant on which they are taking a mortgage. It is a striking fact that the farmer who has surplus funds will ordinarily take a mortgage on some nearby farm at a rate of interest considerably lower than could be had several hundred miles away.

All this is equivalent to saying that credit is not perfectly liquid. That credit does not flow here and there with slightest inducements in interest rates is indicated in the widely varying interest rates paid on similar investments in various sections of the country. There is ordinarily a margin of 1 or 2 per cent between the interest rates on commercial paper in Dallas and El Paso. Texas building and loan associations have recently paid 10 per cent on stock while many similar associations in Ohio were paying 6 per cent. This difference is probably due in part to the greater risks involved in city real-estate loans in Texas, but it is largely the result of "the timidity of credit to get away from home." Ohio is better supplied with loanable funds than is Texas, but investors in Ohio prefer to lend their funds at home at 6 per cent rather than send them to Texas at 10 per cent. They at least think the "home" investment is safer.

INFLUENCE OF FINANCIAL MACHINERY IN DIRECTING CREDIT

Unless borrowers have knowledge of the sources of loans, the interest rate and the safety of the security have little effect. Likewise, if lenders are limited in their knowledge of investment opportunities their loans are not distributed strictly according to the interest rates and safety of security offered. In other words, the two factors discussed above are effective in directing the credit of the country only in proportion to the efficiency of the financial machinery in connecting up the investors and borrowers of the country. The industry which has the best financial machinery will have the advantage in competing for loans from the reservoir of credit.

Financial Institutions.—An immense amount of financial machinery has been developed to connect the owners of surplus purchasing power with the borrowers who use it. The more important branches of the financial or credit machinery of the country include (1) the commercial banking system, (2) commercial paper houses, (3) discount companies, (4) finance companies, (5) savings banks, (6) trust companies, (7) investment banks or bond houses, (8) real-estate mortgage banks, (9) building and loan associations, and (10) the stock and bond exchanges. There should be added to this list the system of direct borrowing which is employed by some concerns and individuals, for in the aggregate a very considerable amount of credit is obtained through direct contact with the investor. The indications are that about one-half of the loans on farm land in this country have been made directly to the borrowers.[1] Many individual business concerns borrow directly from individuals. Also many corporations sell their stock and bonds directly to the public.

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[1] See U. S. Dept. Agr., *Bull.* 1047, 1921.

Efficacy of Financial Machinery.—The effectiveness of an individual financial institution or a group of financial institutions in directing credit to the industry which they serve is determined by several factors. In the first place, the age and reputation of the financial institutions serving a particular business or industry greatly affect their usefulness, both from the standpoint of the investor and the borrower. As an illustration of the effect of a wide reputation for reliability, take our commercial banking system. About one century was required to establish the confidence which the people now have in these banks. A great amount of federal and state legislation and supervision has been necessary. The result is that we have largely ceased to doubt the safety of funds deposited with these banks. Such a degree of confidence on the part of the public did not exist 50 years ago, nor is there such confidence at present in our system of investment banks and mortgage companies. Ordinarily, we take for granted the safety of the state or national bank, the trust company, and savings bank, but not so with the bond house or mortgage company. The practices of the latter institutions have not been so highly standardized or so extensively regulated as have the former, and the individual investor or borrower always has the problem of assuring himself that he is dealing with a reliable concern.

Second, the influence which the financial institution has in directing the credit of the country is affected by the extensiveness of its business connections with investors. Many investment banks have a regular clientele who are always looking for good investments. If the list of regular investors is large and their investments are correspondingly large, the bank is in position to sell a large issue of securities within a short period of time; whereas, if the bank is largely dependent upon finding a new set of investors for each issue, it will be greatly handicapped.

The ability of the fiscal agent of the Federal Farm Loan Board, for instance, to place bonds of the federal land banks with the great investment bankers of the country is one of the most significant improvements which has been made in farm-mortgage financing. Investment banks, having the confidence of regular customers, are ordinarily able to dispose of the issues they recommend. Of course, the ability of the fiscal agent of the board to place bonds with the large investment houses is affected by the particular attractions of safety and tax exemption, but the important point here is that farm borrowers are thus connected up with the large investment banks of the country who are in immediate touch with important sources of credit.

Third, the banker must establish connections with borrowers. In fact, the major problem at certain times and with certain banks is to find borrowers for the surplus credit offered by investors. Much the same methods are used in establishing connections with borrowers as with investors, although personal solicitation is practiced less extensively. The borrower is normally more aggressive in seeking an investment than is the investor in making it. Less appeal is necessary. But there is a considerable amount of competition among investors for loans, particularly, in certain types of financing. Investment banks find one of their chief problems is that of obtaining the privilege of disposing of the bond or stock issues of sound corporations. Building and loan associations in many of our cities at the present time (1928) are finding it necessary to put their major effort on locating borrowers.

Fourth, bankers must maintain connections with other banks. Borrowers and investors are so widely distributed and there is such a great variation in the amount of credit required from time to time that it is often necessary for one financial institution to relay credit to another. All commercial banks have their correspondent banks upon whom they depend for loans and for investments. If the local banker has surplus funds on hand, he often looks to his correspondent to take the surplus as time deposits or to find an investment for it. If he is in need of funds he may expect the correspondent or the federal reserve bank to supply them.

In the case of sale of new issues of government, railroad, and industrial securities, it is a common practice for several investment banks to cooperate. Several bankers often form what is called a "syndicate" and agree to pay the issuing corporation or government a certain price for the whole issue at a specified future date. Before this date, the bankers attempt to sell the securities to the investing public at a price which will pay their selling expenses and yield them a profit. The participating bankers share the risk of not being able to dispose of the securities at a profitable price. In any event, the company or government issuing the security is guaranteed a definite price. The combination of several investment bankers serves a double purpose:

It distributes the risks involved and provides a wider market for the sale of the new issue of securities.

Fifth, the ability of financial institutions to standardize their securities greatly affects their usefulness in directing the credit of the country. The standardization of "commercial paper," the "trade acceptance," and "agricultural paper" by the federal reserve system has greatly facilitated credit transactions. These three phrases have come to have a very definite meaning in the financial world, and these credit instruments are freely bought and sold among bankers without the necessity of extensive investigations. Another good example of standardization is that of the bonds of the federal farm-loan system. It is generally known that the bond of any federal land bank is secured by farm land appraised by federal appraisers at more than twice the amount of the bond and that eleven other federal land banks are liable for its payment. The "federal land bank bond" has come to have a rather definite meaning and is bought and sold without investigation. Such standardization makes possible an easier and quicker connection between the farm borrower and the country's pool of credit.

Sixth, banking machinery must provide for resale of securities in order to be most effective. Several plans have been devised to increase the marketability of securities. Some investment banks and mortgage companies actually offer to buy in the security at the will of the investor. This is true also of many of the building and loan associations. Other banks and companies offer to "do their best" to sell the security, although no definite promise is made. Of course the great market for stocks and bonds is the exchange. Investment houses very frequently indicate to the investor that "an attempt will be made to get this security on one of the big stock exchanges." The fact is often overlooked, however, that being "on the exchange" does not guarantee its sale. Moreover, a large share of the securities sold in the country never have access to the stock exchanges. Agricultural securities have, it seems, never gained any direct advantage from the exchange.

Seventh, the power of the government in regulating the policies of banking institutions has had a great influence in directing the flow of credit in the country. There is a requirement in many states that trust companies invest their funds in certain specific types of investments because of their recognized safety. The same is true of savings banks. In both cases, government regulation has resulted in a large percentage of the investments of these institutions being made in government bonds and real-estate mortgages.

The regulation of the railroads by the government has at times seemed to encourage investments in their securities. At other times the reverse has been true. The uncertainty of the effects of the Esch-Cummins Act of 1920, for example, seemed to discourage investments for a time. The government regulation of any business affects investments in its securities in proportion to the certainty or uncertainty of the permanency of the regulation, and the extent to which the government curtails the net income of the business. If there are uncertainties as to the government's policy, the securities will be affected adversely, whereas, if the policy is well established, securities will be affected according to the restrictions on the income of the business. There can scarcely be any doubt that the setting of an upper limit of 6 per cent return on the valuation of railroads tends to discourage investments in railroad securities, particularly in stock.

Another policy which the government has followed in a few cases is that of wilfully directing the flow of credit by making certain securities exempt from taxation. In supervising the investments of trust companies, the state is looking after the interest of the investor (the ward of the trustee); in regulating the income of the railroads the government is attempting to protect the interests of the patrons and the owners of the railroads; but, in making certain securities exempt from taxation, the government is avowedly looking after the interest of the borrower. Federal farm-loan bonds were made exempt from taxation to induce more credit to flow into agriculture.

Still another way in which the government has directed the flow of credit is indicated in its regulations of the relations among financial institutions. This applies particularly to the commercial banking system. One of the greatest difficulties encountered by the national banking system established during the Civil War was that of properly distributing the supply of money and credit over the country. The National Banking Act required that the currency be distributed somewhat in proportion to the population and bank resources of the various sections of the country. But this plan was not successful; the money did not remain thus distributed. It had a tendency to concentrate in the large financial centers. It was pointed out above that the federal reserve banking system is designed to assure an equitable distribution of funds over the country. Surplus purchasing power in the hands of the Boston Federal Reserve Bank, for instance, is readily directed to the Dallas Bank when the latter is unable to supply the needs of its member banks.

ILLUSTRATION OF INFLUENCE OF SAFETY AND IMPROVED FINANCIAL MACHINERY

The recent history of farm-mortgage financing in this country affords a good illustration of the influence of increased safety and improved financial machinery in directing the flow of credit. For a specific example, take the case of farm-mortgage credit in Texas. It was estimated, in 1915, that the average cost (interest plus commissions) of farm-mortgage loans in Texas was 9 per cent.[1] The indications were that 10 years later the average cost of such loans did not exceed 7 per cent.[2] During this 10-year period federal and joint stock land banks alone lent more than $150,000,000 on Texas farm mortgages, and there is good evidence that other financing institutions have greatly increased their loans during this period. In other words, investment credit was attracted to Texas agriculture at a rapid rate during this period and it is evident that the interest rate paid by the farmer did not furnish the impetus. Neither has there been any very significant increase in the prosperity of the agriculture of the state. In fact, there was widespread depression among Texas farmers during three or four years of this period. What then accounts for the inflow of investment funds?

Undoubtedly the general decline in investment yields, due to the surplus of loanable funds in the country during the latter part of this 10-year period, had some influence on the decline in rates to farmers. But a more significant factor was the keen competition supplied by the federal farm-loan system which was established at the beginning of this period. This new banking system has produced significant results: (1) by standardizing the farm mortgage as an investment, under the supervision of the federal government; (2) by offering tax-exempt securities to the investing public; and (3) by selling bonds on a large scale through well-established investment houses. It is difficult to estimate the effect which the new system would have had if the tax-exemption feature had been omitted, but the greatly increased efficiency in handling farm-mortgage securities, along with the confidence established by government supervision, would doubtless have resulted in some reduction of rates and at the same time increased the flow of farm investment credit to the state. The safety of Texas farm-mortgage loans (at least when obtained through this system) has been increased by a more efficient and conservative system of appraisal of farm property. The investing public is convinced of this greater safety because of government supervision. In spite of the fact that interest rates to investors in these mortgages were actually decreased, the added safety of the securities and the greater efficiency of the financial machinery have undoubtedly hastened the flow of credit to Texas agriculture.

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[1] Thompson, C. W., "Hearings before the Subcommittee of the Joint Committee on Rural Credits" Sixty-fourth Congress, First Session, pp. 98–99.

[2] See Tex. Agr. Exp. Sta., *Bull.* 330, 1925.

Questions and Problems

1. Give reasons for the relatively high interest rates paid on farm-mortgage loans at the end of the nineteenth century.
2. Show how the exemption of federal land-bank bonds from taxation has aided in directing credit into the agricultural industry.
3. Why are interest rates commonly higher in the West than in the East? How have federal reserve banks and federal land banks reduced this variation in rates?
4. What can be done by farmers to attract credit to the agricultural industry?
5. What can be done by financial institutions to reduce the cost of credit to the farmer?
6. How have government control and regulation of banking institutions assisted the farmer in getting credit?

References for Further Reading

Hobson, John A., "The Evolution of Modern Capitalism," New ed., Chap. 10.
Huebner, S. S., "The Stock Market," Chaps. 1, 2, and 9.
Jordan, David F., "Investments," Chaps. 3, 16, and 17.
Kirshman, J. M., "Principles of Investment," Chap. 3.
Moulton, H. G., "The Financial Organization of Society," 2d ed., Chaps. 10 and 15, or 1st ed., Chaps. 10 and 16.
Prendergast, William A., "Credit and Its Uses," Chap. 4.
Robins, K. N., "The Farm-mortgage Handbook," Chaps. 5 and 6.

PART II

THE BORROWER

The investigation now shifts to the borrower. What inducements does the farmer have to offer investors? How does he apply his loans? How does his security compare with that of the merchant, the manufacturer, and other types of business concerns? Farmers' security and the purpose of farm loans will be analyzed in the next seven chapters.

CHAPTER IV

INVESTMENT CREDIT

Purpose of Loans.—In the extension of credit the leading question is: How is the loan to be applied? The lender deserves to know and insists upon knowing the use which is to be made of his loan. The safety of his investment and the certainty of the annual returns on it depend upon its successful application. Of course, the borrower may protect the lender with personal or mortgage security aside from the protection inherent in the immediate process of the application of the loan. The best business practice, however, requires that so far as possible loans should be applied in such manner that both the interest and principal can be paid from the results of the use of the borrowed funds. A close analysis of the proposed use of the loan is, therefore, basic to the farmer, the lender, and the financial institution which shares in the responsibility for the repayment of the loan. A description of the general principles involved in agricultural credit must accordingly be based upon the purposes for which farmers obtain loans. The use made of a loan determines the length of term for which it is desired and, therefore, the type of financial institution which supplies it. Also, the use made of the loan partially determines the original source from which the credit is obtained, the kind of security offered, the means and methods of repayment, and the interest rate. On the basis of use, credit is commonly classified as investment, operating, and consumption credit.

Investment.—The investment capital required in the farmer's business includes: (1) land, (2) buildings, and (3) machinery and livestock. Each of these forms of capital is used to produce several crops. Land has certain qualities which are indestructible and with proper treatment will last indefinitely. Buildings deteriorate more rapidly than land regardless of efforts to maintain them, and machinery and livestock deteriorate still more rapidly than buildings.

There is such a great variation in the degree of permanence of the different types of investment capital that the question of the length of term of investment loans should be considered separately under each type.

CREDIT TO BUY LAND

Land constituted about 70 per cent of the farmer's investment capital in 1920 and about 66 per cent in 1925.[1] In 1920, the average value of land per farm for the country was $8,503, while the average value of buildings per farm was $1,781; of livestock, $1,243; and of implements and machinery, $557. In 1925, the average value of land per farm was $5,920; the average value of buildings was $1,844; of livestock, $763; and of implements and machinery, $422.

The average value of land and buildings per farm increased approximately 90 per cent from 1910 to 1920, while the average mortgage debt per farm increased about 95 per cent;[2] the value of land and buildings per farm increased from $5,470 to $10,284, while the mortgage debt on farms which were mortgaged increased from $1,715 to $3,356.

Thus, there seems to be a close direct relation between the value of the farm investment and the amount of investment credit which is required. But during the period of decreasing farm property values, from 1920 to 1925, the mortgage debt actually increased considerably. The value of land and buildings per farm decreased during this period from $10,284 to $7,764, while the mortgage debt per mortgaged farm increased from $3,356 to $4,004.[3] Normally, it would be presumed that the larger the investment required to operate a farm the larger would be the total amount of credit required. But farm property values increased at an abnormal rate during and immediately after the war period. It is estimated that from 1913 to 1920 the value per acre of farm real estate in the United States increased 70 per cent. Then values decreased at a rate somewhat similar to their previous increase. In 1928, the value of farm real estate per acre was estimated at only 17 per cent higher than that of 1913.[1] This means that farm property values increased during and immediately after the war period far beyond what earnings over a long period would justify. Mortgage debts were contracted during the period of high values which farmers were unable to pay during the depression. Not only were they unable in many cases to maintain payments on old debts, but also many new debts were contracted. Thus, the shortage of income following a period of inflated farm property values effected an increase in the farm-mortgage debt at the same time that the average size of the farm investment was decreasing. This has resulted in an enormous increase in the ratio of debt to the value of farm property. In 1920, the average mortgage debt on farms mortgaged was about 33 per cent of the value of the land and buildings, while, in 1925, it was approximately 52 per cent of the value of land and buildings.

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[1] "Fourteenth Census," Vol. V, p. 24, and "Census of Agriculture," 1925, Vol. I, p. 3. The Census classifies all farm property as land, buildings, implements and machinery, and livestock. The term "farm property" in the census is practically identical with investment capital in the above discussion.

[2] "Thirteenth Census," Vol. V, p. 162; "Fourteenth Census," Vol. VI, Part 1, p. 47.

[3] "Census of Agriculture," 1925, Vol. I, p. 16.

Meaning of "Land."—Before discussing the principles involved in the application of credit used to buy land, some explanation of the term "land" is necessary. The purchase price of land should include the outlay for such permanent improvements as clearing, drainage, terracing, wells, and irrigation. All these forms of improvement involve certain operating expenses each year for upkeep, but the original outlay should be considered as a long-term investment. Such improvements differ from buildings and fences in that they are more permanent and in that they are practically immovable.

Length of Term of Land Loans.—In European countries, land loans are commonly made for terms of 30 to 60 years. In the United States, prior to 1916, the two terms of land loans which were probably most common were 5 and 10 years. The federal farm-loan system created by Congress, in 1916, provides for a maximum term of 30 to 40 years, but a considerable number of borrowers have liquidated their loans with federal land banks within a 10-year period. It is evident that there is no such thing as a specific term for which land loans should be made. On the whole, it is evident that we are approaching the situation which has long prevailed in European countries. The period adopted in the Federal Farm Loan Act seemed long at the time the Act was passed, but the wisdom of this provision is obvious at present. It is conceivable that before this century has ended the common term of mortgage loans in this country will be 30 to 60 years.

[1] See U. S. Dept. Agr., *Circ.* 60, p. 9.

From the standpoint of credit, land and the permanent improvements which go with it are distinguished from buildings, machinery, and livestock chiefly by their durability or degree of permanence. Land is not only more durable normally, but it is less likely to be destroyed by fire, storms, and floods. The maximum term of loans on machinery, livestock, and buildings is determined by their durability, but since land is permanent capital the term of loans must be based on other factors than its durability.

Loans to Buy Land Should Be Paid as Soon as Possible.—Many business corporations have some bonded indebtedness permanently. The farmer's business, however, does not require such a large investment that it is not feasible for it to be owned entirely by the operator. It is generally conceded that it is desirable for the operator of any business to own the capital involved in the business when it is possible. In the case of the farmer, it is a matter of home ownership, as well as ownership of the capital of his business. Just so long as there is a mortgage on the farm, there is a mortgage on the home and a possibility of foreclosure and loss.

It is scarcely possible for the farmer to find a better use for his savings than to apply them in liquidating the debts incurred in buying the farm. At the present stage of development of the investment facilities for farmers, a higher rate of interest is usually paid for loans than the rate which can be obtained on outside investments of equal safety. Arrangements, therefore, should be made when the loan is obtained to pay off the obligation as soon as possible. It can be estimated about how much he will be able to pay each year. Moreover, arrangements should be made whereby he can pay more than the stipulated amount in case he has an exceptionally good year. This latter policy is especially advisable since there is always the possibility of a poor crop. The farmer should make advance payments in the good years in order to hasten the final payment of the debt and to prevent embarrassment in the bad years.

Factors Determining How Soon Land Loans Can Be Paid.—The first and most obvious consideration here is the amount of the loan. If the loan is equal to 70 per cent of the value of the farm, it is evident that it will take approximately twice as long to pay it off as it would if the loan is only 35 per cent of the value of the farm.

Second, the rate of interest which is paid greatly affects the time required to pay off the loan. It is not generally realized that in paying off a long-term loan the total of the interest payments usually exceeds the principal of the loan. Take for illustration a loan of $3,000 made for 34½ years at the low rate of 5½ per cent. If this loan is paid on the amortization plan of the federal land banks, the total amount paid over this period in the form of interest is $3,700, or $700 more than the original principal of the loan. It can easily be seen that an increase of 1 per cent in the rate would amount to a total of several hundred dollars, and would considerably lengthen the time necessary to pay the loan.

Third, the time required to accumulate funds with which to pay off the loan will be greatly affected by the productivity of the farm. That is, if the productivity of the land is properly maintained by the use of commercial fertilizers, rotation of crops, drainage, terracing, etc., the payment of the loan can be hastened. A period of 20 or 30 years is ample time for a very great decrease in the productivity of the land, unless it is given proper care. Another very important factor in connection with productivity is the price of farm products. Productivity, in so far as it has to do with the ability of the farmer to liquidate debts, includes not only the physical amount of products, but also the price of the products. The gross return from the land is calculated by multiplying the physical products by the price at which they can be sold. The chief difference between productivity in terms of physical products and productivity in terms of price is that the individual farmer has greater control over the former. He can maintain the physical productivity of the soil, for instance, but his control over prices is infinitesimal.

If the question of length of term of farm-mortgage loans is approached with the assumption that they will be paid from the net returns from farm investments, the indications are that loans of 50 per cent of the value of farms require from 10 years to infinity. A study made by C. R. Chambers of the Bureau of Agricultural Economics[1] throws some light on the net returns from money invested in farm lands in 1920.[2] This study shows

[1] See U. S. Dept. Agr., *Dept. Bull.* 1224.

[2] Mr. Chambers indicates that the ratio for 1920 varied a maximum of 0.5 from other years. Specifically the ratio in Iowa was found to be 0.5 smaller in 1920 than in the years prior to 1920.

that the ratio of net rent (gross cash rent, less repairs, depreciation, and taxes) to land value in nine widely distributed areas of the country ranged from 2.2 in Minnesota to 6.5 in the "delta" region of the Mississippi Valley. That is, the average net return on the money value of the farms was 2.2 and 6.5 per cent. The average return for all nine areas was 3.8 per cent. On the basis of 3.8 per cent, approximately 20 years would be required to pay off a loan made for 50 per cent of the value of the farm, if we assume that the loan is obtained at 5 per cent interest and the amortization plan of semi-annual payments used by the federal land banks is applied. If more than 50 per cent of the value is borrowed or if the interest rate is higher than 5 per cent, the time required to pay off the loan from net rent is, of course, increased accordingly. Also, the borrower might supplement the net rent with returns from his labor and decrease the time required to pay the loan, or he may use some of the net rent to pay current production and consumption expenses and increase the length of the period required to pay the loan. It is obvious that no very accurate calculation can be made on the basis of net rent. This is particularly true when there is such a wide variation as 2.2 to 6.5 in the ratio of rent to value in different sections of the country.

The fourth important factor in determining the time required to pay for land is the ability of the farmer himself. There is, of course, a wide range of ability among farmers. One man may require twice as long a time to pay off his loan as another, although they are operating the same kind of land under identical conditions. Some farmers could never pay for a piece of land, even under the most satisfactory conditions, while others under the same conditions could pay for the land within five years. The length of term required for land loans probably depends more on the ability of the individual farmer than on all other factors combined.

In the fifth place, the thrift of the particular farmer has much to do with the time required to pay off loans. Thrift may be defined as that characteristic which is revealed (1) by saving, (2) by wise spending. The less of the current income which is used up for immediate satisfaction, the more there is to pay off debts. The quality of being able to spend wisely is really one of the measures of a farmer's ability as a producer, but the quality of being a good "saver" is not necessarily connected with technical or business ability. The effect of thrift in the full sense of the word is very noticeable among our European immigrant farmers. It is a very common observation that our recent immigrants are thrifty. Thrift, abetted frequently by a lower standard of living, usually enables them to pay for their farms more rapidly than do the older inhabitants of this country.

The discussion of the length of time required to repay land loans may be summed up by saying that it depends on the amount of the loan, the interest paid, and the borrower's ability and willingness to accumulate a surplus from his annual production. For example, if he buys a 60-acre farm at $100 per acre and borrows $3,000, or one-half of the purchase price, at 5½ per cent interest, and pays according to the federal land bank's amortization plan, he must set aside $195 per year in order to be able to pay off the loan in 34½ years. That is, he must accumulate and set aside each year for 34½ years an amount equal to $3.25 per acre of the land.[1] This means an annual net return of 3¼ per cent on the total investment in the land. If the borrower can and desires to do so, he may pay off the loan in 17¼ years by setting aside $390 each year. In this case the investment in the land must be made to yield a return of 6½ per cent, or else he must supplement rent with other income in meeting the annual payments.

CREDIT FOR BUILDINGS

In 1920, about 15 per cent, or a little more than one-seventh of the value of the average American farmer's farm property,[2] was represented by buildings. In 1925, the value of buildings was about 21 per cent of the total value of farm property due to a slight increase in the value of buildings and a large decrease in the value of other farm property. The type of buildings, as well as the value of buildings per farm, differs considerably in different sections of the country. The type of buildings needed depends primarily on (1) climatic conditions, (2) the type of farming, and (3) the stage of progress of the community. In the northern sections of the country more and better buildings are needed for the protection of the family and livestock during the winter. In the humid sections more shed protection is required for crops and machinery than is required in the arid or semi-arid sections. More buildings are required in those sections where dairying and livestock farming are carried on extensively than in strictly crop-farming sections. Generally, more and better buildings are found in the more progressive farming sections.

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[1] See Federal Farm Loan Bureau, *Circ.* 7.

[2] Residences are included in this discussion. They are in reality consumption goods and not investment capital, but since the farmer's home is so closely connected with his business and since the characteristics of the residence from the credit standpoint are similar to those of other farm buildings, it is discussed here. Further discussion of residences will be found in Chap. VI.

Buildings proper include (1) residence, (2) barns and silos, and (3) stables and sheds. It seems only logical, however, to classify fences, windmills, pumps, water pipes, etc., with buildings. From the standpoint of durability, mobility, and the causes of depreciation they are very similar.

Characteristics of Buildings from Credit Standpoint.—From the standpoint of financing, buildings are a rather distinct type of farm investment capital. Farm mortgage banks and insurance companies have long recognized the importance of the distinction between land and buildings in making loans. They are usually appraised separately, and loans are made under separate consideration.

Normal Durability.—The primary basis for the distinction here between buildings and land is their durability. Normally, farm buildings depreciate rapidly. The depreciation of buildings is due primarily not to use but to climatic conditions. Soil is worn out with use, while buildings depreciate whether they are used or not. In fact, the soil is often improved by letting it "lie fallow." Buildings depreciate more rapidly when they are idle, not because they are idle, but because they are not properly cared for when not in use. Closely related to physical depreciation of buildings is obsolescence, or the depreciation in value due to a change in their usefulness. The old buggy shed depreciated in value with the coming of the automobile.

Estimates of the period of usefulness of farm buildings range from 10 to 50 years. Much depends, of course, upon the kind of buildings under consideration and the care given them. The wide variation in the rate of depreciation is indicated in a footnote of the "Farmer's Account Book" issued by the Extension Division of the Michigan Agricultural College. It is stated that "it is customary to allow an annual depreciation of 2 to 10 per cent on farm buildings." In the "Simplified Farm Account Record Book," of the Extension Division of the Oklahoma

Agricultural and Mechanical College, farm buildings are classified as "dwellings, tenant houses, barns, silos, and other buildings," and the following percentages of depreciation are suggested, "providing good care will be given the buildings": dwellings, 3 to 5 per cent; tenant houses, barns, and other buildings, 4 to 8 per cent; and silos, 4 to 12 per cent. Studies made in California indicate 20 years as the average life of farm buildings.[1]

For purposes of illustration it seems that 20 years may be accepted as representing the average durability of farm buildings in this country.

Destruction by Accident.—Not only do buildings differ greatly from land in their normal durability, but they are also subject to sudden destruction by accident. They are subject to destruction by fire, storms, and floods. Regardless of the care which may be exercised to prevent fires, some destruction by fires is inevitable. A fire may be started by lightning or by incendiarism, as well as through carelessness. Storms and floods are of course unpreventable. The bank or insurance company which lends on buildings must consider that on the average there will be a certain percentage of destruction of buildings by such accidents and, unless the buildings are insured, this consideration directly affects the length of term for which the banker is willing to make an advance.

It is coming to be a common practice to insure buildings against accidents, particularly fire. Most banks and farm-mortgage and insurance companies require that buildings be insured against fire. To the extent that buildings are insured, the consideration of accidents as affecting their durability is of course eliminated so far as loans are concerned.

Depreciation in Money Value.—Buildings depreciate in money value chiefly because of the actual depreciation of the materials of which they are constructed, but also in part because of the inadaptability of buildings to new uses or new locations once they are built. It is expensive to move a house or a barn. Also, moving is harmful to the structure. A barn cannot be adapted to any other use without great difficulty and expense, and fences can be moved only at great expense in breakage. Land, on the other hand, can more easily be used for one purpose this year and another next year. Its physical and chemical depreciation is much more gradual.

[1] ADAMS, R. L., "Farm Management."

Length of Term of Loans on Buildings.—Loans should not be made for the full period of usefulness of buildings. If the banker extends a loan for one-half the value of the buildings, the term should not exceed one-half of the period of their durability. For example, suppose the mortgage banker is willing to lend $1,000[1] on a $2,000 building. This means that the farmer must use $1,000 of his own funds in constructing the building. Now if the building lasts 20 years and the borrower requires the whole period to pay off the loan, he has lost the $1,000 with which he started. If he pays it off in 10 years he has 10 years in which to save another $1,000, and at the end of the 20-year period he is in exactly the same position as when he started. But it is presumed that he desires finally to have full equity in the building, in which case the loan must be paid in less than 10 years.

The general rule that farm loans should be paid as soon as possible is even more applicable here than in the case of land loans. The higher rate of normal depreciation of buildings makes rapid liquidation of building loans more vital. Also, the uninsured risks should effect a reduction in the term according to the estimated chance of loss during the normal period of durability.

But we have been assuming in the above discussion that the loan was used only for the purpose of purchasing buildings. It is a common practice to use one farm-mortgage loan to buy both land and buildings. Then the question arises as to how long such loans should run. The fact that the two types of capital differ greatly in their permanence must be considered in determining the proper length of term for the loan. The part of the loan which is invested in buildings should have the effect of reducing the length of term which would have been proper had the whole loan been used to buy land.

CREDIT FOR MACHINERY AND LIVESTOCK

According to the 1920 Census, about 15 per cent of the value of the average farmer's investment capital is represented by implements and machinery and livestock. The average value of implements and machinery per farm was $557 in 1920, or 4.6

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[1] Federal land banks lend on the combined security of land and buildings, and limit the loan to 50 per cent of the value of the land and 20 per cent of the value of buildings.

per cent of the total value of all his investment capital. Though the value decreased to $422 in 1925, the percentage of the total value of all investment capital was 4.7, or approximately the same. The average value of livestock per farm was $1,243 in 1920, or 10.3 per cent of his investment capital. In 1925, the average value had decreased to $763, which was only 8.5 per cent of the total value of the investment capital.[1] The amount of machinery and livestock per farm varies in different sections of the country, and on different farms, chiefly according to the type of farming. Machinery is used more extensively in the wheat-growing states, for instance, than it is in the cotton-growing states. The investment in livestock per farm is naturally greater in the dairying, ranching, and feed-growing sections than in the truck and cotton sections.

The classification of machinery and livestock as a type of investment capital distinct from land or buildings is purely arbitrary, and is based upon their durability or rate of depreciation. The only similarity of machinery and livestock is that on the average their period of usefulness is about the same. From the standpoint of credit financing this is fundamental.

Machinery.—A broad classification of machinery according to its use should be helpful in visualizing just what the farmer's requirements are along this line. The following list illustrates the great variety of such equipment which is necessary on the farm: (1) machinery used in preparing and fertilizing the soil, such as breaking plows and manure spreaders; (2) planters of many different types, according to the kind of seed to be planted; (3) cultivating tools and machinery, such as hoes, cultivators, harrows, and the like; (4) harvesting machinery, such as binders, mowers, rakes, and cotton pickers; (5) manufacturing or processing machinery, as threshers, cream separators, and silage cutters; (6) transportation implements and machinery, as wagons, buggies, and trucks; (7) engines or power machinery used on pumps, plows, threshers, etc.; (8) tools and machinery for repairing, as carpenter tools and blacksmith equipment; and (9) supplementary tools and equipment, such as hammers, wrenches, harness, etc.

Livestock.—Not all livestock is investment capital. Whether a particular class of farm animals should be considered as investment capital or operating capital depends on the nature of the service they render. Some animals are useful only when they are slaughtered, others are useful both during their life and when they are slaughtered, and still others are useful only during their life period. From the standpoint of financing, the farmer's livestock may thus be classified as (1) animals used only for meat, (2) animals used for meat and other products, and (3) draught animals. Beef cattle and hogs come under the first classification. Livestock of this kind, except those kept for breeding purposes, last only one period of turnover of the business and should, therefore, be considered as operating capital. They produce no income until they are sold for slaughter.

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[1] See "Census of Agriculture," 1925, Vol. I.

Dairy cattle, sheep, goats, and fowl come under the second classification. They not only supply meat, but they are useful in supplying other products before they are slaughtered. Among the products supplied are milk, wool, mohair, and eggs. They represent an investment from which an income is being derived. They are investment capital. Credit to buy dairy cattle may safely be secured for terms of 3 or 5 years, while credit to buy hogs should be for only 1 year, or for one turnover period, whatever that period happens to be.

Horses and mules come under the third classification. Like dairy cattle, sheep, goats, and fowl, they are distinctly investment capital. The chief distinction from the standpoint of credit is that they have no meat value at the end of their life period. There is no value with which to pay off a loan or to assist in their replacement.

Characteristics from Credit Standpoint.—The most important feature of machinery and livestock from the standpoint of financing is that they have a high rate of depreciation. Machinery wears out with use and "rusts out" when it is not in use. Investment capital in the form of livestock depreciates with age, and it is subject to destruction or depreciation by accident.

Machinery.—The length of time which a farm implement or machine will last varies with the care which is given it, the type of machine, the type of farming, and climatic conditions. The significant thing here is that the normal life of an implement or machine is considerably less than the normal life of a building, and is considerably more than one period of turnover of the farmer's business. Estimates of the durability of farm machinery have been made in various sections of the country. In Minnesota it was found that a threshing machine lasts about

8 years, a sulky plow about 12 years, a grain drill 16 years, and a hay tedder about 20 years.[1] In Oklahoma, the farmers have been advised that with "good care" farm implements and machinery will last from 8 to 20 years.[2] It was stated, for example, that a wagon should last about 20 years, a corn binder about 10 years, and a manure spreader about 8 years. An estimate made for Michigan indicates 7 to 12 years as the average period of usefulness of farm machinery.[3] Studies made in California indicate that farm implements and machinery are subject to an average annual depreciation of 10 per cent, or that their life period averages about 10 years.[4]

Livestock.—Certain kinds of livestock differ from machinery from the financing standpoint in that after the regular period of usefulness there is left a sale value. After the dairy cow has passed her period of service as a dairy cow she can be sold for beef. Breeding cattle, sheep, goats, hogs, and fowl can likewise be sold on the basis of their meat value at the end of their regular period of usefulness. It is only in the case of work stock that this final sale value does not exist. Horses and mules are useless at the end of their regular period of service.

The fact that some animals have a sale value at the end of their regular period of usefulness has the effect of reducing the rate of depreciation. From the standpoint of the borrower who has obtained loans to buy livestock this simply means the final sale value of the animals will assist in paying off the loan or in replacing the stock. The average useful life of sheep is 4 years, according to the above noted estimate, but sheep will sell for mutton at a price equal to about 75 per cent of their value while producing wool. Similarly, breeding hogs after their 6 years of service are worth about 50 per cent of the first price for slaughtering purposes. It is estimated that after 8 years of use the average dairy cow will sell for beef at a price equal to 50 per cent of her original value as a dairy cow.[5] That is, in the latter two cases the borrower should pay the loan within 6 or 8 years, respectively, but it is necessary for him to save an amount equal to only one-half of the total value of the animals.

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[1] Minn. Exp. Sta., *Bull.* 117.

[2] Extension Division, Oklahoma Agricultural and Mechanical College, "Simplified Farm Account Record Book."

[3] Extension Division, Michigan Agricultural College, "Farmer's Account Book."

[4] Adams, R. L., "Farm Management."

[5] All figures are purely illustrative. They are estimates made by investigation in California. See R. L. Adams, "Farm Management," pp. 361–362.

There is another important difference between livestock and machinery from the financing standpoint. Under ordinary conditions livestock which is used purely for meat products appreciates in money value throughout its life. Draught animals and livestock used for meat and other products appreciate in value only while they are growing to maturity. But machinery is at its best when it is bought. It has a continuous period of depreciation thereafter. In young livestock the farmer has a type of investment capital which will increase in value at least for a certain period. Whether the lower price for which young animals can be bought is a real advantage will of course depend upon the cost of bringing them to maturity. The point here is that from the standpoint of liquidating a loan the young animal is accumulating value, while machinery is dissipating value.

It has been estimated that the normal period of usefulness of livestock ranges from an average of 2 years for fowl to an average of 10 years for horses and mules.[1] Dairy cattle have a useful life of about 8 years, breeding hogs about 6 years, and sheep are useful for about 4 years. From these figures there should be deducted certain percentages of depreciation for accidents and disease. For example, on the basis of the normal death rate of horses and mules their period of usefulness is placed at 10 years, but death from abnormal causes amounts to 2 per cent. This means that the normal rate of depreciation of horses is 10 per cent and the actual rate, after taking accidents and disease into consideration, amounts to 12 per cent. That is, the average actual period of usefulness is only 8$\frac{1}{3}$ years.

Length of Term of Loans. On the basis of the durability of the capital, the maximum period for which most livestock and machinery loans should be made is from 5 to 10 years. But the loan often amounts to only 50 or 75 per cent of the purchase price of the livestock or machinery. In fact the banker or merchant is usually careful not to lend 100 per cent of the value if the security is limited to a mortgage on the animals or machinery which is bought. It is quite common for the borrower to have cash sufficient to pay one-half or one-third of the purchase price and to borrow the remainder. The maximum period of the loan in such instances should be reduced by one-half or one-third, respectively, for if the entire period of service of the livestock or machinery is used in accumulating enough to pay off the loan the borrower may find it necessary to replace the capital at a time when no savings are available for the purpose. If the borrower has cash sufficient to pay one-half of the purchase price for horses which will be useful for 10 years, he should pay off the loan the first 5 years and have the remaining 5 years in which to accumulate one-half enough to replace the horses.[1] But this is assuming that he is to be in debt forever. For him to be able to have full equity in his horses he must save faster. If he can pay his loan within 2 or 3 years he has some chance to accumulate enough during the remaining years of service of the horses to replace them without further borrowing.

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[1] ADAMS, R. L., "Farm Management."

As in the case of credit to buy buildings, the loan to buy livestock and machinery is often a part of a farm-mortgage loan on land. The borrower may use a part of the mortgage loan to pay for land, a part to construct buildings, and the remainder to buy livestock and machinery. If a large portion of a long-term loan is used to buy capital subject to a high percentage of depreciation, there is great danger of the accumulation of a large debt. Suppose the borrower obtains a loan of $10,000 for a term of 40 years and uses half of it to buy livestock and machinery. If he pays off the principal of the loan in equal annual installments, at the end of the first 8 years he has paid only one-fifth of the loan, yet one-half of the capital which he borrowed is used up and must be replaced. He still owes $8,000 of the original loan and is in need of another loan of $5,000 with which to replace his worn-out livestock and machinery.

Questions and Problems

1. From the standpoint of credit, what are the more significant differences between land and buildings?

2. What determines the proper length of term of land loans? Explain.

3. Why are annual payments advisable on investments? What are the advantages of flexibility of maximum annual payments on investment loans?

4. Classify the following items of farm investment capital on the basis of the maximum length of term of loans made for their purchase: (*a*) ten-

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[1] This assumes that the cost of replacement will be the same as the original cost. If the cost of replacement is likely to be greater than the original cost, the borrower should hasten payments on the loan in case it is practicable. Also, the possibility of collecting interest on savings during the latter five years is not considered in this illustration.

year-old draught horse; (*b*) five-year-old dairy cow; (*c*) new grain drill. Classify these items on the basis of the percentage of value which the conservative banker might be expected to lend.

5. Should the farmer permit loans on buildings, livestock, and machinery to run during the full period of service of the capital? Explain

6. Assume that the banker lends 75 per cent of the value of land, barns, binders, dairy cows, horses, breeding hogs, and sheep.

(1) After taking into consideration, (*a*) normal rates of physical depreciation, (*b*) susceptibility to accidents, (*c*) long-time price trend, (*d*) sale value at the end of the regular period of service, and (*e*) cost of upkeep, classify the above items of investment capital on the basis of the inherent safety of loans made for their purchase.

(2) On what loans would you expect interest rates to be highest? lowest?

(3) Compare the following methods used by bankers in counteracting the inherent risks involved in investment loans: (*a*) reduction of ratio of loan to value of property; (*b*) reduction of term of loan; and (*c*) increase in interest rate.

CHAPTER V

OPERATING CREDIT

Farming involves a series of applications of capital and labor during the period from the time the soil is prepared to the time the product is ready for the market. The farmer buys land, buildings, machinery, and livestock as a basis for production, but in operating this capital further expenses are involved. He must feed his livestock, repair his machinery and buildings, buy seed, hire labor, and pay taxes and interest on debts. That is, he requires operating capital, labor, and ready cash as well as investment capital. The expenses involved in securing operating capital, the services of laborers, and in paying taxes, interest and so forth are called "operating expenses." Credit for these purposes is operating credit.

In addition to the operating expenses involved in growing and harvesting, the farmer sometimes has the problem of financing the marketing of his produce. The goods are often held for a time by the individual farmer or by his marketing organization. He may be able to hold the product for a better market only by borrowing. Often the farmer's cooperative association holds the product and uses it as security on which to borrow funds to advance to members. It makes little difference whether the individual or the association holds the products. Financing is necessary in either case and if the farmer is unable to do it, he must borrow or the association must borrow for him. There are then two types of operating credit: (1) credit used in paying the expenses involved in growing and harvesting, and (2) credit used in financing marketing.

OPERATING CREDIT FOR FARM PRODUCTION

Operating Capital.—The operating capital used in agriculture may be classified as follows: (1) feed, (2) seed, (3) repair materials, and (4) miscellaneous supplies.

Feed.—It seems that under ordinary conditions the farmer would raise sufficient feed for his needs, and that feed financing would not be necessary. The 1920 Census indicates, however, that of about $7,000,000,000 worth of feed consumed on American farms in 1919 over $1,000,000,000 worth was bought.[1] That is, about 15 per cent of the feed was purchased. This meant an average expenditure of $312 per farm.[1] Feed prices were of course extraordinarily high in 1919. An estimate for 1923 places the average expenditure for feed at $210 per farm.[2] The indications are that whether prices are high or low the farmers of the country buy about 15 per cent of their feed.

The heaviest expenditures for feed are found in the dairy sections and in those regions in which beef cattle and hogs are produced. There is a natural tendency, of course, to produce animals and animal products in the regions which are particularly well adapted to the production of feed. In the Corn Belt, for instance, beef and hog production are important. Strangely enough, however, a great amount of feed is purchased by farmers in this area. Some farmers of this section specialize in crop production, while others emphasize livestock production. The Corn Belt farmers not only raise livestock extensively, but they buy many beef animals from the western ranges for fattening.

The dairy-producing regions, on the other hand, are determined largely by the distance from the market, rather than the location of the necessary feed. Thus most of the dairy regions are near the great centers of population. The dairyman may even find it more economical to buy a large portion of his feed rather than attempt to raise it, even though the land is well adapted to the production of feed crops.

While the average expenditure for feed per farm in this country in 1919 was $312, the farmers in the dairying states of Massachusetts and New York spent an average of $728 and $524, respectively. Nebraska farmers feed beef cattle and hogs extensively and, in spite of their own great corn production, they spent $703 per farm for feed. Arkansas farmers, who do very little dairying or beef cattle and hog raising, spent only $149 per farm. Texas farmers spent $282. In Texas, the heaviest expenditure for feed is found in the best cotton-growing areas.

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[1] See U. S. Dept. Agr., *Yearbook*, 1922, p. 1005; 1924, p. 1114; and 1921, p. 495.

[2] U. S. Dept. Agr., *Yearbook*, 1924, p. 1131.

These farmers specialize in cotton and depend on the farmers of other sections for a large share of their feed.

The farmer's expenditures for gas or other fuel with which to operate gasoline and steam engines used in production should be classified along with feed for draught animals. The motor is substituted for the draught animal and the fuel consumed is comparable to the feed consumed by work stock. Gasoline for tractors, pumps, etc. is a considerable item of expense on some farms, and it is unlike feed in that it must be bought. It cannot be produced on the farm.

Seed.—Although the annual expense involved in supplying the necessary seed for the farms of the country is in the aggregate an important item, for the individual farmer it is comparatively insignificant. Seed is usually retained from the previous crop. The average expense per farm for seed has been estimated at $43 in 1922, and $40 in 1923.[1] The necessity of buying seed arises after a crop failure, when the farmer desires to improve the quality of his product, or when a new crop is being introduced.

Repair Materials.—The annual expense for the upkeep of farm investment capital is an important item. In the first place, the land itself requires repairs of various kinds. The soil must be repaired from time to time. This may be done by crop rotation, by decay of products of the soil, by animal manure, or by the use of commercial fertilizer. Ordinarily, the last named is the only type of fertilizer which must be bought and is, therefore, the only method which involves financing. Commercial fertilizer is being used in increasing quantities, particularly in the older farming regions along the Atlantic Coast. It is estimated that the farmers of the South Atlantic states spent an average of $178 per farm for fertilizer in 1922, and $210 per farm in 1923.[1] In the states farther west more of the original fertility remains and fertilizer is not used so extensively. The average expenditure for fertilizer for the whole country has been estimated at $57 in 1922 and $60 in 1923.[2] The permanent improvements on the land, such as drainage and terrace systems, must be repaired frequently. The expense for such repairs is largely for labor, however, and is included under the discussion of labor as an operating expense.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 1131.

[2] These estimates are based on reports received from farm owners by the Division of Farm Management, Bureau of Agricultural Economics. See U. S. Dept. Agr., *Yearbook*, 1924, p. 1131.

The farmer has an annual expense in keeping his buildings in repair. The barn needs repainting, window panes are broken, shingles rot off, etc. Also, farm machinery requires repairs. Plow points must be sharpened; occasionally new parts are needed for the binder, tractor, and thresher; a new bed is needed for the wagon, etc.

Miscellaneous.—It is impossible to list all of the different kinds of miscellaneous supplies which are needed in operating the farm. They include such things as medicine for livestock, oil and grease, twine, salt for animals. In those sections of the country in which irrigation is required, an important operating expense is that for water rights.

Labor and Services.—Since the seasonal character of farming prevents an even distribution of labor through the year, many farmers find it necessary at certain times to supplement their own labor force with hired labor. The harvesting season is a notable example of the need for extra labor. There are certain crops in particular which must be harvested within a very short period of time to prevent weather damage and to prevent deterioration from other uncontrollable conditions. Many farmers, however, use hired labor throughout the year. They operate on a scale too large for their own labor supply, and in order to get the maximum returns from their capital and management they employ extra labor regularly.

About 45 per cent of the farmers of the country hired either seasonal or regular labor in 1919.[1] The average number of laborers employed per farm was about one and one-half, and the average expense per farm for the year was $470.[2] This is equal to 15 to 20 per cent of the total value of their products that year.[3] Wages are paid from time to time through the year and unless the farmer has surplus funds he must borrow from his banker and make final settlement when his products are sold. The total money wages paid to farm laborers in 1919 has been placed at $1,098,604,590, or 6.6 per cent of the value of the products of all the farmers in the country, if crops fed to livestock are excluded. The estimate, for 1924, places the total money wages at $864,982,384,[1] or about 7 per cent of the value of all farm products that year, excluding crops fed to livestock.[2]

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 1123.

[2] U. S. Dept. Agr., *Yearbook*, 1922, p. 1005.

[3] U. S. Dept. Agr., *Yearbook*, 1924, p. 1114. It is assumed here that these farmers produced 45 per cent of the total farm products of the country.

The indications are that the percentage of farm labor which was done by hired laborers was increasing during the latter part of the last century and the first decade of the present century. In 1880, the farmers in Minnesota, for instance, did 75 per cent of their own labor, while, in 1890, they did 69 per cent, in 1900, they did 66 per cent, and in 1910 they did 61 per cent.[3] But it would seem that financing hired labor has become relatively less important since 1909, since the portion of the total value of farm products which was paid to laborers has decreased from 8.1 per cent in 1909 to 7 per cent in 1924.

Besides the ordinary farm labor, there are certain professional services which are required. Such specialized services as those of the veterinarian, the mechanic, and the lawyer must be employed. The farmer may avoid the necessity of financing labor by doing his own labor, but in the case of the special services financing is always necessary whether they are paid for in cash, or in kind, secured on time, or paid for with funds borrowed from the bank.

Investment Capital Expenses.—In addition to the expenses involved in purchasing operating capital and hiring labor and services, the farmer makes cash payments for taxes, rent, interest on debts, and property and crop insurance. Such expenses are usually called "fixed charges." All these except crop insurance are annual expenses on investment capital. The greater part of the farmer's taxes represents annual contributions to the government on the basis of the amount of his investment capital. Rent is an annual payment for the use of investment capital, while interest on the mortgage debt is an annual payment for the use of funds. The payment of interest on the mortgage debt is essentially a rent charge on a part of the investment capital in which the borrower has an equity. Premiums paid on property insurance are likewise an investment capital expense. Premiums on crop insurance are an expense. Such insurance is a guarantee of a certain return for expenses involved in the production of the crop.

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[1] "United States Census of Agriculture," 1925, Vol. I, p. 16.

[2] See "Statistical Abstract of the United States," 1926, p. 601.

[3] Minn. Exp. Sta., *Tech. Bull.* 4, 1922.

Taxes.—A large part of the burden of financing local and state governments falls on property, particularly real property. Since a very large share of the real property, or lands and buildings, of farming communities is owned by farmers, they pay heavily for the upkeep of the local and state governments. It has been estimated that the farmers who operate their own farms paid an average of $174 each in taxes on farm property in 1922, and $190 each in 1923.[1]

Property taxes are collected soon after farmers have harvested and sold their crops, and for that reason it may be thought that the payment of taxes should never involve the use of credit. Under ordinary conditions the farmer does have cash with which to pay his taxes. When prices are very low, or when there is a crop failure, however, borrowing is often necessary. At any rate the payment of taxes in January or February helps to drain the farmer's cash resources and has the effect of hastening the time when he must start on a credit basis in the purchase of operating capital.

Rent.—About one-third of the farm tenants in the country pay cash rent for the use of the landlord's investment capital, but rent is ordinarily paid at the end of the year and involves credit financing only in case of crop failure.

Interest on Debts.—Interest on operating loans is normally paid at the end of the crop production period and can be paid from the returns of the crop along with the payment of the principal. In the case of loans in livestock production, however, interest payments may be required before the end of the turnover period. Interest payments on loans for investment purposes are often made semi-annually. Such payments can be made in some cases only by borrowing. The total expenditures in 1923 for interest on loans of all kinds by farmers who own their farms has been estimated at an average of $230 per farm.[1]

Insurance.—The most important item of expense involved in property insurance consists of premiums on fire insurance. In 1920, the value of farm property which was insurable against fire amounted to approximately $26,000,000,000. Just how much of this property is insured is not known. Farmers' mutual fire insurance companies are probably the most important type of insurance company handling this business. In 1920, these companies were carrying risks amounting to about $8,000,000,000.[1]

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[1] U. S. Dept. Agr., *Yearbook,* 1924, p. 1131.

Another important type of property insurance is that which covers the risk of windstorms. No information is available regarding the average amount expended by farmers on such insurance, but it seems to be increasing in importance. Insurance against disease or accident to livestock is used quite extensively in many European countries and is coming to be used in this country to some extent. At present it is applied chiefly to horses.

Hail insurance is practically the only type of insurance against crop risks which has been made available to farmers. The total hail insurance policies carried in 1919 have been estimated at about $500,000,000. This means that only about 3 per cent of the crop values for that year was insured against hail. Some states have taken the responsibility of insuring farmers against hail risks. Notable instances are North and South Dakota, Nebraska, Montana, and Oklahoma. In 1923, these state hail insurance departments carried about one-fourth of the total hail insurance in the country.[2]

Length of Term for Operating Loans.—The length of term of loans made for the purposes described above is determined largely by the period of turnover. If the farmer's expense for a crop begins in January and the crop is sold in November, his period of turnover is 10 months. If a beef calf is born in April, 1923, and sold in April, 1926, the period of turnover is 3 years. But it is the usual practice to buy operating capital in installments during the period of crop or animal production. Then, strictly speaking, the investment in capital bought in May before the crop is sold in November has a turnover period of only 6 months, and the investment in feed for the calf in April, 1924, has a turnover period of only 2 years.

The proper length of term for operating loans varies (1) according to the particular time the loan is made and (2) according to the type of agricultural production. If the loan is obtained at the first of the turnover period, it should mature at the end of the period; if it is obtained in the middle of the turnover period, it should run only for the remainder of the period. The turnover period itself varies with the type of agriculture. In most types of crop production the turnover is determined by the seasons. One year is required to produce the crop. But in the various kinds of livestock production the period varies from a few months in the case of poultry to 3 or 4 years in the case of beef steers.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 239.

[2] See U. S. Dept. Agr., *Yearbook*, 1924, pp. 248–253.

CREDIT FOR MARKETING

The process of marketing agricultural products involves two types of financing. In the first place, funds must be advanced to pay for the marketing services, such as transportation, warehousing, and insurance. These advances may be recovered in the form of a higher price for the product when it is sold, but from the time the expense is incurred to the time the product is sold an investment is involved. In the second place, the value of the product when it starts through the marketing process represents an investment. Whoever advances the funds to pay for the marketing services and whoever owns the product is financing marketing. Often this financing is done by borrowing.

Marketing credit can properly be discussed as agricultural credit only when farmers do their own marketing. Otherwise it is called "mercantile" or "commercial" credit. In the past, farmers concerned themselves chiefly with growing and harvesting their products and left the function of marketing to merchants or so-called "middlemen." The farmer matured and harvested his crops and immediately sold them to some merchant who in turn passed them on to another merchant or manufacturer and so on until they reached the ultimate consumer. But American farmers have been demonstrating during the last three-quarters of a century that they are not content with the services rendered by middlemen. There has been a great amount of propaganda among farmers for the "elimination of the middleman." Farm leaders have emphasized the necessity of selling directly to the manufacturer or consumer so that the farmer may receive the profits which have been going to the merchant. Since the organization of the Grange just after the Civil War, there have been numerous attempts both on a local and nation-wide scale to organize the farmers. The chief purpose of these attempts, especially those since the 'seventies, has been to solve the farmer's marketing problem. The notable success of cooperative marketing in certain European countries and the experience gained by American farmers through the several efforts at organization seem to have resulted in establishing cooperative marketing on a permanent basis in this country during the past two decades. It seems probable now (1929) that about 20 per cent of the farm products of the country are handled by farmers' cooperative concerns.

Farmers who are not members of marketing associations often prefer to hold their products for better prices. This involves warehousing and continued investment in the commodities. That is, the farmer assumes some of the marketing functions. He must make an advance for warehousing and insurance or else store the products on the farm and take the risk of loss by fire or deterioration. Much more difficult is the process of waiting for the returns on the crop. Even if the farmer has no old obligations to meet, he usually finds it necessary to borrow for the next crop.

Necessity for Credit.—The marketing process requires considerable time and the marketing period for one series of products usually overlaps a part of the production period for the next series of products. The transportation of goods from the farmer to the consumer requires time, and the process of finding buyers requires time. The basis for the most important time element, however, is found in the fact that consumers take goods regularly through the year while the farmer, especially the crop farmer, has his whole year's product ready for the market at one time. Somebody must hold the product over until the consumers call for it.

Farmers' marketing organizations propose to take over this job of holding the product until the consumer is ready for it. They hope to get a higher price by selling the product gradually through the year. In fact this is the most important phase of the "orderly marketing" program of the cooperative associations. It is maintained that dumping the whole year's product on the market within a short period of time has been one of the chief causes for low prices of farm products, and that the cooperative marketing association must remedy this evil by selling the product in an orderly manner through the year.

Some idea of the volume of credit used by farmers' cooperative marketing organizations can be obtained from the loans made by the twelve regional intermediate-credit banks. Reports on the total volume of loans to cooperative associations by these banks are made each year by the Federal Farm Loan Board. One of the chief purposes of these banks is to assist cooperative marketing associations in financing the marketing of farm products. From about the middle of 1923, when the banks were organized, to Dec. 31, 1928, the total of such loans for the twelve banks was $426,706,350, or an average of approximately $75,000,000 per year.[1] Loans closed during 1928 amounted to $53,571,351, while the amount outstanding Dec. 31, 1928, was $36,174,077. Of the amount outstanding on this date, more than $23,000,000 or about two-thirds of the total, was secured by the cotton associations. Raisin associations had loans of $4,678,600, wheat associations, $2,483,118, canned fruits and vegetables, $2,118,248, tobacco associations, $1,359,899. Other commodity associations which had loans were wool, beans, honey, alfalfa, and redtop seed—each with less than $1,000,000 in loans.

Of course, many cooperative marketing associations do not borrow from the intermediate-credit banks. Also, many of the borrowing associations get a part of their credit from commercial banks. So the figures given here are by no means conclusive as to the total volume of credit required by farmers' marketing organizations. They only indicate that the total volume is large.

One of the most difficult problems which the cooperative marketing organization has is that of financing. The membership of the association consists of farmers who as individuals have the problem of financing production prior to marketing. In addition to the credit required during the production period, the cooperative program requires an extension of the time on production loans, the creation of new loans, or both. Production loans can be paid only when the product is sold, and the orderly marketing policy extends the time of sale. Cooperative marketing not only extends the time of sale but it involves certain expenses. The farmer must make advances to cover marketing expenses and wait longer to receive the returns from his products. Even if he has been able to finance himself in the growing and harvesting of the products, he may find it necessary to borrow before the goods are finally sold. Borrowing is all the more necessary in those cases in which credit is used in producing the crop. Cotton farmers, for instance, borrow extensively while producing the crop and in many cases find it almost impossible to wait longer than the end of the year for the returns from the crop. Merchants and bankers who have advanced loans often insist on payment immediately after the cotton is picked. This precludes an orderly marketing program unless the local creditors can be satisfied in some way. There are two ways of handling the situation. The merchants and bankers may be induced to extend their loans for a longer period of time so the farmer will have ample time to carry out his orderly marketing program, or the marketing association may offer the product as security and obtain credit to advance to the farmer and thus enable him to pay off his creditors. The significant point here is that the cooperative marketing program has increased the farmer's credit needs. He has assumed the responsibility of financing the marketing of his product as well as its production. If he needed credit to grow and harvest his products, more credit is needed for their marketing. Even if he needed no production credit, he may find it necessary to borrow before the product is finally sold.

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[1] See Federal Farm Loan Board, *Ann. Rept.*, 1928, pp. 124 and 126.

To summarize, the farmer has four types of funds tied up in the product as it goes through the marketing process: (1) operating funds which he has borrowed during the production period, (2) funds which he himself has advanced during the production period, (3) funds advanced to pay marketing expenses, and (4) the potential profits of the year. If he had to borrow during the production period, it is evident that he will require either a new loan or an extension of the old loan. Whether he will have to obtain loans in lieu of the profits and his own investment in the form of funds expended during production period, will depend upon his needs while he is waiting for the returns from his products. Since the marketing period for one crop overlaps the producing period for the next crop, it seems obvious that borrowed funds must take the place of the farmer's own funds until the crop is sold. Whether the farmer can forego his profits until the product is sold depends of course on the amount of his obligations. Profits are used by many farmers in paying for land and other investment capital. Such payments would simply have to be adjusted to the income periods created by the extension of time in selling products.

Length of Term of Loans.—The length of term of marketing loans is determined by the marketing policy. If the products are sold 6 months after they are matured and harvested, the marketing loans required should be made for that period of time. That is, the old production loans must be extended 6 months, and new loans arising in the marketing process should be made to mature at the time of sale. But, since products are sold continually throughout the year, the length of marketing loans varies considerably. The term for any particular loan is determined by the time expiring before sufficient products are sold to pay it off. Cotton farmers, for instance, who market their products through the cooperative association adjust the length of their loans to the regular periods at which they receive payments from the association. The Texas Farm Bureau Cotton Association has been making four payments to its members at certain specified dates during the year. Loans secured by the members of this association should be made to mature on these dates. The dates when the loans are made will of course depend upon the financial situation of the borrower.

It should be remembered, of course, that not all cooperative organizations follow the same policy regarding the time of sale of the product. In fact, it is coming to be the policy of most associations to sell when, in their judgment, the best price can be obtained. In most cases, no effort is made to sell a definite amount of products each month. Likewise, the individual who holds his products has no definite time schedule for sales. He sells when he thinks the market is most satisfactory or when he needs the money.

In this connection, it should be pointed out that the time required in marketing varies considerably with different farm products. In the first place, animals are sold when they are in the proper condition. Holding them off of the market is too expensive, since their upkeep is usually more than enough to counteract any increase in price which might be received. Whether the animals are marketed by the individual producer or by an association of producers, comparatively little time is involved, and marketing credit is insignificant as compared with that involved in marketing other products. Marketing credit may be required before the products reach the consumer, but a very large part of the financing arises after the livestock leaves the hands of the farmer or his association. The packer and merchant have the more important credit problem in financing the marketing of meat products.

In the second place, there are certain farm products which are very expensive to hold over any great length of time because of their perishable nature. Financing the marketing of fresh vegetables is a relatively short-time process. Fresh vegetables require cold storage in warm weather and freezing must be prevented in cold weather. Either process is sufficiently expensive to prevent keeping them over for any considerable period of time.

In the third place, there are certain types of farm products which can be kept in their raw state with very little expense. In this class are such important crops as cotton, corn, wheat, and tobacco. It is in the sale of such products as these that the farmer has his greatest problem of market financing. These crops may readily be held by individual farmers or by associations for many months with little or no deterioration and at comparatively little expense.

Methods of Financing.—The extra financing involved when the farmer performs marketing functions may be done in several ways. It is possible in some cases for the farmer to do all the financing. He may be able to wait for his returns until the product is finally sold and he may even have sufficient funds to pay the expenses of marketing. It is more usual, however, for the farmer to require credit for at least a part of the financing. He may need funds to pay old obligations, he may need funds to start another crop, or he may need both.

The most common practice in case of the association handling such products as cotton, wheat, and tobacco seems to be for the farmer to do a part of his own financing and borrow the remainder. A part of this borrowing is done by the farmer and a part of it by the association. The associations commonly advance the farmer 50 to 75 per cent of the value of the product when it is received. They are able to make such advances by borrowing on the basis of warehouse receipts for the commodities held. The additional credit needed by the farmer before his product is sold is usually secured at the local bank.

Questions and Problems

1. Classify the purposes of operating credit in farm production, and estimate the relative importance of each on the basis of the amount of credit required.

2. The average farmer in Massachusetts probably buys twice as much feed as does the Texas farmer. Yet Texas bankers are more emphatic than

are Massachusetts bankers in urging farmers to produce their own feed. Explain.

3. Under what conditions do you consider it good business policy for the farmer to hire labor even though he must pay wages from borrowed funds?

4. In what sections of the country and at what seasons of the year would you expect the heaviest loans to pay for seasonal labor? In what sections would you expect the regular employment of farm laborers to be most prevalent?

5. How is the term for operating loans determined?

6. For what purposes is marketing credit used?

7. Compare the amount of financing necessary in marketing a crop and the amount necessary in producing and harvesting the crop. In which case is the farmer likely to need more credit? Explain.

CHAPTER VI

CONSUMPTION CREDIT

Consumption credit is distinguished from production credit in that it is used to buy goods or to pay for services which are not directly connected with the process of production. Funds borrowed for this purpose are spent, while funds borrowed for production are invested in the product which is being grown. Consumption goods are used for the immediate satisfaction of the farmer and his family, while production goods and services are used directly for creating an income.

Necessary Consumption Credit.—Without any great violence to logic credit to buy family necessities might be classified as production credit used to maintain the family labor force. Certainly such credit should not be confused with credit which is only very indirectly connected with production. Bankers and merchants clearly recognize this distinction in extending loans. Credit for the necessary family supplies is recognized as being an essential part of the farmer's financing. But bankers and merchants are very cautious in extending credit beyond the amount required to maintain the family in working condition. Such practice is based on the fact that the family labor which is being thus maintained will ordinarily yield enough to pay the obligations. From a purely business standpoint, credit for food and the other necessary family supplies is largely production credit in the same way that credit to buy feed for work stock is production credit. There are, however, certain reasons for classifying it as necessary consumption credit rather than production credit.

In the first place, consumption goods and services are obtained primarily for personal satisfaction and only indirectly for the purpose of carrying on production. Because of this fact, no definite line can be drawn between what is necessary and what is unnecessary. The motive is immediate self-satisfaction, and this can easily lead to expenditures which have no relation to the productive efficiency of the farmer. The purely production expenditures are never made unless there is prospect of increased income sufficient to pay them and to have a profit left, whereas, in the case of expenditures for personal satisfaction, consideration of the effect on production is by no means uppermost.

In the second place, not all the necessary family supplies and services are used directly in maintaining farm labor. Several members of the family may not assist in the farming operations. For the younger members of the family the food and clothing required are out of all proportion to the amount of farm labor they do.

In the third place, family supplies and services have long been classified as consumption goods and services. Economists have considered the expenditures for personal satisfaction as separate and distinct from production expenses. It is indeed common in industries other than agriculture to keep separate accounts for business and family expenses. Of course, an item of family expense would be out of place in the accounts of a business corporation. But with the farmer the situation is different. Farming is almost entirely an individual business. There are no stockholders or partners to whom a farmer must make an accounting. He combines his total expenses for the year without any distinction between family items and purely production expenses.

It must be admitted that no general statement can be made as to just what is necessary and what is not necessary. Supplies which are commonly recognized as necessities include: (1) food, (2) clothing, (3) fuel, (4) house furnishings, and (5) certain incidental supplies. Services commonly recognized as being necessary include those of the physician, the dentist, and the nurse. Just what the necessary minimum of these supplies and services is, or should be, for credit purposes, is a problem for the credit merchant, the banker, and the borrower to decide in particular cases.

Unnecessary Consumption Credit. The use of what is here called unnecessary consumption goods and services does not perceptibly increase production and the application of loans for these purposes does not provide for their liquidation. Debts so acquired cannot be considered as expenses of business. They must be paid from net income.

Musical instruments and automobiles used for pleasure are distinctly unnecessary to production. Their use is for personal satisfaction. Passenger automobiles are sometimes considered instruments of production, but their use as income producers is as yet quite insignificant. They are rather noted as consumers of income. For this reason, bankers ordinarily refuse to make loans for the purchase of automobiles. They are highly desirable, but the expense of upkeep and their insignificance as a factor in the productive operations of the farm seem to indicate that it is poor business policy for the farmer to purchase them on an anticipated income.

Other unnecessary consumption expenses include all forms of extravagant expenditures for food, clothing, and household supplies. Expenditures for amusements and travel should also be included.

CONSUMPTION EXPENDITURES

Data collected in certain counties in New York, Texas, Kentucky, and Tennessee, from 1919 to 1921, indicate that the average cost of family living was $1,470 per year.[1] This cost-of-living figure should be reduced to $1,437 since an average of $33 was spent for life insurance premiums, which should be considered as savings or investments and not as expenses. The $1,437 was divided as follows: (1) for food, $652 (45 per cent); (2) for clothing, $248 (17 per cent); (3) for advancement, including education, recreation, social contact, and travel, $115 (8 per cent); (4) for health, $66 (5 per cent); for personal items, $17 (1 per cent); and (6) for miscellaneous expenses including fuel, household supplies, and the estimated rent on the residence, $339 (24 per cent).

About $540, or 38 per cent, of the total family living costs was furnished by the farm and, therefore, does not directly involve financing. From 40 to 70 per cent of the food and a large part of the fuel consumed were supplied by the farm. Also the rent did not involve an actual outlay. It was estimated by taking a normal rate of interest on the value of the building. After deducting items furnished by the farm, the net annual outlay in 1919 to 1921 for living in these states was estimated at $897.

A comparison of living expenses with gross income and production expenses should be illuminating here. According to an estimate made for owner-operators for the whole country, the average gross receipts per farm from all sales was $1,972 in

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[1] U. S. Dept. Agr., *Yearbook*, 1923, p. 580.

1922 and $2,240 in 1923.[1] For these two years an average of about $1,300 was actually paid out for livestock, feed, fertilizer, seed, taxes on property, labor, machinery, and tools, and miscellaneous items of operating expenses. The actual outlay for family living then seems to be about two-fifths as much as the gross income and about two-thirds as much as the outlay for production capital.

These figures are presented to show that financing the family is one of the farmer's most important credit problems. It is recognized of course that the general price level was higher in 1919 when most of the figures on the cost of living were collected than it was in 1922 and 1923. This discrepancy is partly offset, however, by the fact that the cost-of-living figures for New York were for the year ending Sept. 1, 1921, when prices were at a low level. Also, it is recognized that these figures cannot be accepted as being accurate in representing either the average family expenditure or the gross receipts of all the farmers of the country. In the first place, the data on family expenditures represent samples from only four states and they include only white families; in the second place, the gross receipts figures are restricted to farmers who own their farms and to a limited number of these. In spite of these limitations, however, they do show something of the relative and absolute importance of the farmer's expenses for consumption goods and services.

IMPORTANCE OF CONSUMPTION CREDIT

Although no definite information is available as to the amount of consumption credit obtained by farmers, observation and certain investigations show that it is rather extensive, particularly in some sections of the country. A large part of the credit obtained from merchants is consumption credit. That American farmers have used, and are using, merchant credit extensively is a well-known fact. An investigation made by the U. S. Department of Agriculture in 1922 indicates that over 50 per cent of the farmers were obtaining credit from merchants.[2] Only 1 or 2 per cent of the farming communities of the country reported that no merchant credit was being used. Answers to a questionnaire sent to Texas bankers in 1925 indicate that slightly

[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 1131. These estimates are based on reports from 6,094 farmers for 1922 and 16,183 farmers for 1923.

[2] U. S. Dept. Agr., *Yearbook*, 1922, pp. 25–30.

more than 50 per cent of the farmers obtain merchant credit. About 60 per cent of the farmers in Dane County, Wisconsin, received merchant credit in 1915.[1] An investigation in North Carolina in 1921 shows that over 54 per cent of the farmers use merchant credit,[2] and that about 50 per cent of all short-term farm credit was received from merchants. A study made in three representative counties in New York indicates that of a total of 320 country stores, 307 extended some credit.[3] About 53 per cent of the customers had credit accounts and 53 per cent of the total sales were made on credit, either on open accounts or on the basis of customers' notes.

Just what portion of the merchant credit obtained by farmers is consumption credit is not known. Credit to buy machinery, feed, and fertilizer is of course production credit. In some cases these items account for a large part of the merchant credit received. In certain North Carolina counties, for instance, it has been estimated that about 44 per cent of the merchant credit obtained by farmers was used to buy fertilizer.[2] Farm machinery is frequently bought on credit, but practically all the goods bought from grocers, dry-goods merchants, furniture and drug stores are consumption goods. The study made in New York indicates that 83 of the 191 stores whose records were analyzed were general stores, and that 44 per cent of their sales were credit sales. Since general stores handle consumption goods chiefly, these figures give some indication of the importance of consumption credit in New York.

Farmers also use a considerable portion of their bank loans for consumption purposes. In fact, there has been a noticeable tendency among farmers during the past few years to avoid the high interest rates on merchant credit by borrowing from the banker and paying cash for goods. The replies from Texas bankers in 1925 indicate that an average of about 40 per cent of the loans to farmers is used for consumption purposes.

THE TERM OF CONSUMPTION LOANS

All goods bought or services hired on credit and used during the period of production should be paid for when the products of the period of turnover are sold. A new supply of goods must be bought during each successive turnover period and, unless the farmer pays for goods and services currently used from current production, he will soon accumulate debts which he can never pay. The banker and merchant will cease to carry his accounts.

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[1] Univ. Wis., Agr. Exp. Sta., *Bull.* 247.

[2] N. C. Dept. Agr., *The Bulletin*, May, 1923.

[3] Cornell Univ., Agr. Exp. Sta., *Bull.* 430.

The time allowed in paying for the residence is affected by its rate of depreciation. If the residence lasts 25 years, the banker can afford to make the loan for that period of time, providing the loan is being paid off as the building depreciates. Such equipment as furniture, stoves, victrolas, radio sets, and pianos are subject to rapid depreciation. The merchant who sells them on credit, if he is sufficiently enlightened in his own interest, will require partial payment at the time of purchase and payment in full before they are worn out.

Finally, mention should be made of the automobile. The passenger car has been classified as a consumption good despite its use in a limited way in production. The important characteristics of the car from the credit standpoint are (1) rapid depreciation and (2) high cost of operation. The first characteristic indicates that automobile loans must be paid off rapidly, while the second characteristic has the effect of decreasing the borrower's ability to pay off rapidly. The result is often disastrous. The necessity for rapid payment and the heavy cost of upkeep of automobiles have been effective during the past 10 years in preventing many farmers from achieving financial independence.

THE ECONOMICS OF CONSUMPTION CREDIT

In considering the propriety of consumption loans the distinction made above between necessary consumption goods and unnecessary consumption goods is important. It could hardly be said that the farmer should not borrow to obtain the necessities of life. Of course, it is advisable for him to have a surplus sufficient to maintain his family, but this is not always possible. A crop failure may force him to borrow; he may be starting in business; or he may have to borrow because of a lack of thrift. In any of these cases, it may be to his own interest to obtain credit. Also, it is probable that in a majority of cases the interests of society as a whole are served since such credit makes possible the continued productive activity of the borrower.

The case is quite different with loans for extravagant expenditures for food, clothing, and the other family supplies, or for any expenditure for the type of goods which do not aid directly in production. It seems advisable for all concerned to delay such purchases until the income to pay for them is realized. There are several definite reasons why such credit should never be obtained. In the first place, such loans are usually very expensive. Installment purchases of consumption goods usually involve the payment of a very high rate of interest. The interest paid on such loans is entirely out of proportion to the rate the farmer would be able to receive on an investment. The installment purchase of consumption goods, such as musical instruments and automobiles, decreases savings. A more economical method is that of accumulating the full purchase price before buying. The high interest charge of the installment purchase is equivalent to an increase in the price of the article. The buyer's purchasing power is thereby greatly limited.

In the second place, unnecessary consumption loans are not advisable from the standpoint of general economy. Such credit tends to develop extravagant and thriftless habits on the part of many borrowers. If the goods desired can be had in advance of the effort required to earn the purchase price, the stimulus for saving may be decreased. Ordinarily the stimulus for saving is greater if the satisfaction to be derived is in the future than if the goods have already been consumed. Borrowers come to depend upon the banker rather than upon their own effort and thrift. The encouragement of borrowing for unnecessary consumption purposes would undoubtedly be disadvantageous to the economic welfare of the country.

In the third place, borrowing for unnecessary consumption tends to weaken the whole credit structure. The unsoundness of such credit is particularly evident during periods of depression. The borrower usually has very little equity in the capital which he uses, and adverse price conditions often result in bankruptcy and default in the payment of loans. The banks have partially avoided the evil effects of consumption credit by carefully restricting the amount of such loans. But they have suffered greatly from the liberal credit policy of merchants. Every period of agricultural depression takes its toll of banks which have become heavily involved in financing credit merchants. There is an increasing sentiment at present to discourage the extension of such credit by merchants. Farmers are encouraged to obtain loans from the bank and pay cash for supplies. Such practices would not only tend to decrease the amount of unnecessary purchases and increase the thrift of farmers, but it would put the whole agricultural-credit system on a sounder basis. Loans would be based on better security, interest rates would be lower, and in the long run bank failures would be less frequent.

Questions and Problems

1. Criticize unnecessary consumption credit from the standpoint (*a*) of the banker or merchant, (*b*) of the borrower, and (*c*) of the public as a whole.
2. Why is the distinction between necessary and unnecessary consumption credit important?
3. Why do merchants supply a large portion of farmers' consumption credit?
4. Explain the high cost of consumption credit.

CHAPTER VII

SECURITY FOR FARM CREDIT

From the standpoint of legal enforcement, there are two types of credit contracts—the general and the specific. That is, the borrower may obtain credit on such security as a plain personal note or an open account, or he may mortgage such specific property as land, buildings, machinery, livestock, crops, or other property. In the former case, the borrower is liable to the extent of his total assets, except such as are specifically mortgaged or exempted otherwise by law, for the payment of the obligation. Nothing is specifically mortgaged. Credit obtained on such general security is usually called "personal credit." It is extended on the good name and reputation of the borrower, but implicitly his available assets are pledged for the repayment of the loan. The banker frequently prefers a mortgage on certain specific property, because (1) the assets of the borrower may not be sufficient to pay off all his creditors, (2) there may be prior claims or mortgages on a part or all of the assets, and (3) the borrower is either not well known to the banker, or his reputation for integrity and ability is not satisfactory.

Extent of the Use of General Security. It has been estimated that about two-thirds of the operating credit extended by commercial bankers to farmers is safeguarded by general security, as evidenced by personal notes.[1] About one-third is secured by the plain note of the borrower and one-third by the borrower's note with the indorsement of one or more persons. Personal notes with indorsements are general security just as are individual notes except that the unencumbered property of more than one person may be taken in payment of the loan. Frequently, tenants and others who have limited assets, whose personal qualifications are not well known to the banker, or whose reputation is unsatisfactory, must obtain the indorsement of their landlords or friends of good standing in the community.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, pp. 223*ff*.

Another form of general security is in common use by farmers in certain sections of the country, *i.e.*, the open account with merchants. Merchants often require a personal note or even a mortgage on specific property, but the plain charge account seems to prevail.

The Farm Mortgage.—The most common and by far the most important type of specific security which the farmer uses is the farm mortgage. Practically all credit for the purchase of land and buildings is acquired on the basis of a mortgage on the farm whether the loan is obtained from the ordinary bank, the farm-mortgage bank, the insurance company, or an individual. Also, a mortgage is often given on the farm for the purchase of livestock and machinery. In emergencies, short-term credit obligations are sometimes funded by securing a long-term loan on the farm mortgage.

The farm is the greatest asset of the farmer, and it forms the great property bulwark of his credit of all kinds. Its use as security for loans hastens the process of ownership for young farmers. The significance of its use for this purpose is indicated by the fact that in the United States, in 1920, over 37 per cent of the farms operated by owners were mortgaged for debts amounting to over $4,000,000,000.[1] The total farm-mortgage indebtedness at that time on all farms in the country was estimated at approximately $8,000,000,000, an amount which is probably twice the total farm loans of all other kinds outstanding at that time. Strange as it may seem, on first thought, the most progressive and richest agricultural sections of the country seem to have the highest percentage of farms mortgaged. This high percentage of mortgaged farms simply reveals an active struggle for farm ownership by the extensive use of the farm mortgage as security for loans to buy farms. The states which have the highest percentages of mortgaged farms almost invariably have low percentages of farm tenancy. The mortgaged farm seems to be a normal step in the advancement of the individual farmer from tenancy to full ownership.[2]

The Chattel Mortgage.—The chattel mortgage is next in importance as specific security for loans. According to a recent estimate, more than 15 per cent of the short-term bank loans to farmers in the United States, in 1923, were secured by mortgages on livestock and between 3 and 4 per cent were secured by mortgages on farm machinery.[1] A considerable portion of the credit extended by merchants is secured by such mortgages. Also, the recent development of the installment sale of automobiles has created an enormous farm debt based partially on the security of chattel mortgages on the cars. Mortgages on teams and machinery are particularly important bases of farm credit in the cotton-growing states, while mortgages on livestock are most prevalent in the range and cattle-feeding states.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 190.

[2] See WIGDER, CLARA F., "Farm-mortgage Interest Rates," *The Journal of Land and Public Utility Economics*, Vol. I, pp. 102–117.

Crop Liens.—Crop liens were used as security for about 6 per cent of the short-term bank loans to farmers in 1923.[1] This type of security is found chiefly in the South and is used most commonly by tenant farmers. Over 29 per cent of the short-term bank loans to farmers in Alabama, in 1923, were made on crop liens.[1] It was pointed out above that the banker usually looks to the income of the borrower for the payment of the loan, and that loans obtained on personal notes are based largely on the prospects of the borrower for income. But bankers sometimes consider that the obligations of the borrower are such that safety must be sought in a specific mortgage on a part or all of the crop. It is common for Southern bankers to take a lien on the first bale of cotton or the first five, as the case may be. This simply establishes a first claim on the income of the borrower.

Collateral.—The warehouse receipt on farm products is not as yet used very extensively by the farmer, although its use is increasing with the recent development of our warehousing system. The farmer has in the past done very little warehousing, but with the increasing sentiment for the "orderly marketing" of farm products the use of the warehouse receipt will serve as a basis for credit and will become more and more important. The extensive use of the warehouse receipt will be restricted largely to the cooperative marketing associations. Already many cooperative organizations are using this instrument on a large scale in obtaining loans to advance to members while the product is being marketed.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 223.

Farmers have not used stocks and bonds to any great extent as security for loans, chiefly because they have not had such securities. Ordinarily, the farmer can invest his surplus earnings on the farm. If he does have a surplus for outside investment, he is proverbially afraid of stocks and bonds. He usually prefers to invest in something with which he is more familiar. The extensive purchase of government bonds during and after the recent war, however, seems to have done much to break down the old prejudice against investment in bonds. About 3 per cent of the short-term loans of bankers to farmers in 1923 were secured by stocks and bonds.[1]

The Security of the Bank.—Since most farm loans are not received directly from the original owners of loanable purchasing power but through a financial institution, the investors or original lenders have the double security of the banker and the farmer. The deposit banker guarantees his depositors with whatever specific mortgages he may have on the property of borrowers, with personal notes of borrowers, and with his own capital and undivided earnings. In the case of all national banks, and some state banks, the law requires additional security of an amount equal to the capital stock of the bank. A few of the private farm-mortgage companies and all of the joint stock and federal land banks pledge their own assets to guarantee the investor against loss. Federal land banks go one step further in guaranteeing the safety of its farm-mortgage bonds, since its bonds are secured by the combined capital and earnings of the whole system of twelve federal land banks.

A very large amount of savings is invested in farm mortgages through savings banks and insurance and trust companies. These investments are secured by the farm mortgages in the hands of the banks and companies, and by their capital and undivided earnings. Also, they are protected in a general way by special laws regarding the policies of such institutions. Savings banks and insurance and trust companies are particularly well supervised by the state governments for the special reason that the savings of large numbers of small investors are involved.

Then the original owners of the funds which are lent to farmers through financial institutions have the double security of the farmer and the banker. All depositors of banks, policyholders of insurance companies, and wards of trust companies are indeed similarly protected whether their funds are lent to farmers or other borrowers, but the regular investment banks or bond houses which sell the securities of industrial and commercial corporations seldom, if ever, attempt to guarantee the investment.

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[1] U. S. Dept. Agr., *Yearbook*, 1924, p. 224.

DESIRABILITY OF FARM SECURITY

It is scarcely possible to arrive at any definite conclusion as to the relative soundness of the security of whole industries. Probably every one would agree that the crude-oil producing industry is a more hazardous undertaking than is farming; but when we compare agriculture with the more stable industries of manufacturing, merchandising, and transportation the difference in safety is not so clear. Agriculture is proverbially called the "basic industry," or the industry upon which all others depend. It would seem, therefore, that farm credit would be based on the soundest security to be found. It is entirely possible on the other hand for an industry to be fundamentally sound and yet have many weaknesses from the credit standpoint.

1. Security for Operating Credit

Loans which are most desirable to the commercial banker have three important characteristics, *viz:* (1) a short term, (2) salability and, (3) safety. Farm security often falls short on one or more of these requirements.

Weaknesses. *Length of Term.*—The fact that farm-operating loans often run for six months or a year has in the past been one of the most undesirable features of agricultural loans from the standpoint of the banker. Bankers who had a large share of their loans out for such periods were frequently embarrassed by the demands of their depositors. A large percentage of their deposits was subject to withdrawal on demand and the banker sometimes had great difficulty in keeping his vaults supplied. His only outside source of supply of funds was his correspondent bank. Moreover, there was only a fair degree of certainty that the correspondent would be in position to supply the funds or that he would desire to do so, even if he could. This situation has been greatly improved since the introduction of the federal reserve system in 1914, particularly for banks which are members of the system. Each member bank now has its federal reserve bank, one of the chief aims of which is to supply the needs of member banks by rediscounting their notes. If the local member bank becomes hard pressed for funds and is unable to collect his outstanding loans, he may be able to have them rediscounted with the federal reserve bank.

Special provision was made in the original Federal Reserve Act which permits rediscounting of agricultural paper for a maximum period of six months, and the Agricultural Credits Act of 1923 carries an amendment to the Federal Reserve Act extending the maximum period to nine months. The turnover period of the farmer is essentially longer than that of the merchant or manufacturer and the above provisions are an attempt to adapt the banking system to his needs.

The weakness seems now to lie chiefly with the farmer in failing to supply his banker with rediscountable notes. Since federal reserve banks are located at great distances from the community of the local member banks and do not know the individual borrowers, they require a financial statement of the business of all borrowers whose notes are rediscounted. This requirement is relatively easy for merchants and manufacturers to meet, but it is not so easy for a large percentage of the farmers. The result is that a very large percentage of agricultural paper remains ineligible for rediscount.

Farmers Not Prompt.—The farmer has long been accused of not being prompt and business-like in settling obligations with the bank. In so far as this is the case it represents a weakness of farm security. It seems, however, that the point has been stressed more than the facts warrant. Since the farmer lives at considerable distance and has only intermittent dealings with the bank, there is of course a tendency toward slackness in such matters. But the distance from the farm to the bank has in effect been greatly reduced by the automobile and good roads. Also, the introduction of records and accounts, slow as it is, should have the effect of making the farmer more business-like.

Uncertainty of Income.—Probably the most serious weakness of the farmer's security is the uncertainty of his production and the uncertainty of the total marketable supply of his product. That is, the individual farmer is uncertain as to how much he will produce and as to what price the crop will bring. The uncertainty of the total supply of a particular farm product is due (1) to the lack of information about how much to attempt to produce, because of the fact that production is carried on in small, widely distributed units, and (2) to the uncertainties of climatic, pest, and disease conditions. Manufacturing is far less subject to the latter list of uncertainties. Moreover, manufacturing is ordinarily carried on in larger and more concentrated units, and production statistics can be obtained more easily. The United States Steel Corporation, for instance, has little difficulty in ascertaining how much steel is being produced. There are relatively few plants, and information concerning their output is easily available. The steel manufacturer can, therefore, estimate the supply fairly accurately. He has a still greater advantage over the farmer in that he can control his own supply. The cotton or wheat farmer must take the wildest guess at the probable total supply and price of his product in adjusting his acreage, and even after he has decided on a particular acreage for the year, he has no accurate indication of the amount he will produce, since he has little or no control over climatic and pest conditions. With the manufacturer or merchant there are no parallel uncertainties as to the amount of output.

The risks involved in the uncertainty of supply and price of farm products are difficult to eliminate. There are, however, at least three ways in which the uncertainty of supply and its effects can be reduced: (1) by increasing the amount of available information as to the probable supply, (2) control of insects and diseases, and (3) diversification in production. With more satisfactory information as to the probable production of the different crops and animal products the farmer can better adjust his acreage and the number of animals. The U. S. Department of Agriculture is attempting to supply such information to a limited extent at present. Estimates are made, for instance, of the number of hogs being produced in the country, and many farmers of the Corn Belt are regulating their production of hogs accordingly. Likewise, the department is attempting to supply farmers with estimates of "intentions to plant" for various crops. But all these efforts are yet in the initial stage of development. Much more information can be collected and certainly more effective methods of getting the estimates to the farmer can be devised. Farmers' cooperative marketing associations should become very effective machinery for collecting and distributing such information. Just as long as the individual farmer has little or no knowledge of what other farmers are doing, there will remain the present uncertainty of supply and price.

Of course there will always be uncertainty because of uncontrollable climatic and other conditions, but the acreage of crops and the number of livestock are subject to a greater degree of control than prevails at present.

The uncertainty which arises from the lack of control of individual production can be decreased only to a limited degree. It is only in exceptional cases, for instance, that the farmer can afford to irrigate or to use artificial heat. He must take a chance on rain and warm weather. Insect pests and diseases can be controlled to some extent, but the damages done by the cotton boll weevil, the corn borer, and wheat rust are examples of our lack of control of such destructive agencies. The chances of failure on account of climatic and other partially uncontrollable conditions and the uncertainty of price are so great that the generally accepted opinion is that "there is safety only in diversification."

If one source of income fails another may succeed.[1] It is then through scientific discovery of ways to control insects and diseases and diversification of production that the uncertainty of individual production can be reduced. These efforts together with a more intelligent control of crop acreage and livestock production will result in greater certainty of income.

Commodities Not Salable during Period of Loan.—It has been suggested that farm-operating loans involve a peculiar risk in that farm products are worth little or nothing until they are harvested.[1] That is, feed, seed, fertilizer, and labor do not immediately become marketable wheat, cotton, or corn. There is an interval in which there is nothing which could be sold on the market, whereas, in the case of a loan to a merchant the stock of goods remains as salable security. As the goods are sold the loan can be paid. There is at all times a stock sufficient to cover the remainder of the loan. Likewise, in manufacturing there are usually stages of production in which there is a salable commodity, although it may not be in the final stage of production. In the production of machinery, for instance, there is the iron-ore stage, the pig-iron stage, the steel, the finished parts, and finally the machine. There is a salable product at each step.

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[1] The banker's view of the necessity of diversification is indicated in the following statement made in a footnote of the financial statement blank of the Dallas Federal Reserve Bank: "The character of the Cropping System of a farm business has a credit value of the highest importance to both the farmer and the lender; and as farming is the annual investing of capital and labor at one place, safety requires, as in other investments, that all the capital and labor be not invested in one thing, or in the production of one crop.

"In order that farming operations may be conducted on a safe and profitable basis every year, diversification is absolutely necessary. Every farmer should raise enough poultry, hogs, milk cows, vegetables and fruit to supply the family with most of their necessary food. A sufficient number of acres should be planted in feed crops to feed the stock on the farm or to feed stock for the market, if desired; part of the land should be planted in food crops for the market and the balance in other crops, *but not more than 50 per cent of the cultivated land should be planted in one crop.* Such a plan should enable the farmer to pay his debts promptly every year and result in greater prosperity for him."

The temporary absence of a salable commodity in agricultural production is truly a handicap in farm credit, but its relative importance may easily be overemphasized. As a matter of fact there are stages in the manufacturing process in which there is no salable product. In the production of machinery, the whole period in which the mining shaft is being sunk and other preparations are being made to extract the ore there is no tangible or salable product. Also, some time elapses between each of the above-named stages of machine production. Iron ore does not suddenly become pig iron, nor does pig iron suddenly become steel. Even in the case of the merchant who handles only finished goods, there are rather definite limitations to the salability of the product. The goods may be out of date or consumers may be unable to buy them. Hence, the lack of salable products to show for the operating capital and labor used in their production is not wholly peculiar to agriculture.

The Strength of Farm Security for Operating Credit.—From the above discussion one might wonder if there are any strong points in farm security. There is indeed fundamental strength in this security. It can be summed up in the following words: the relative stability of the demand for agricultural products. The weaknesses pointed out above have reference to the business methods of the farmer, the banking machinery, and the supply of agricultural products. In these instances farm security seems to be more or less at a disadvantage as compared with that of most other industries, but in the stability of demand for his products the farmer has the advantage. Compare, for instance, the certainty of the demand for such raw products as cotton, corn, and wheat with the instability of the demand for a particular style of clothing which the merchant has in stock. Compare the stability of demand for cotton, corn, and wheat with the demand for the various types of products made from these crops. While there is a comparatively regular demand for the product in its raw state, the demand for special manufactured products may be very irregular. The manufacturer and the merchant must take the risk of finding a market for the special products made from the basic commodity. Usually, the greatest problem of the manufacturer and the merchant lies in estimating and regulating demand, while this is a comparatively minor problem for the farmer. It is true, of course, that the demand for farm products is not constant and the farmer must adjust his supply to a varying demand, yet the demand is relatively stable as compared with the demand for products of most of the other major industries. Producers of the leading agricultural products seldom find it necessary, for instance, to resort to advertising or demand creation, while whole manufacturing and merchandising industries have been established and maintained by advertising.[1]

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[1] W. H. Steiner in "Some Aspects of Banking Theory," points out three risks peculiar to agricultural loans, *viz:* (1) the low sale value of the product prior to its final production, (2) the risk of superabundance of yield and the resulting low price, and (3) lack of diversification in farm production.

In making loans to farmers the banker is not dependent on the prospective sale of a new and unknown commodity or a commodity for which the demand is subject to wide fluctuations. If the supply is not extraordinarily great, sale at a fair price is almost a certainty. This is an important and fundamental element of safety in the security offered for farm-operating loans.

Farmers have an actual or potential advantage in the diversity of commodities which they can produce. While manufacturing and merchandising are becoming more and more specialized, many maintain that the general tendency in agriculture is toward diversification. Farmers can produce several varieties of food products to be consumed at home, as well as several kinds of commodities for the market. A sound program of diversified farming should counteract in part at least the farmer's disadvantage in regulating supply. That is, although the manufacturer may be able to adjust his output more readily, the farmer may partially overcome the disadvantage by distributing his price and production risks over a large number of commodities.

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[1] It is true, of course, that farmers benefit from advertising done by the manufacturers to the extent that such advertising increases the demand for raw materials, but a large percentage of advertising affects the demand for a particular type of manufactured product at the expense of other manufacturers of the same type of product and does not greatly influence the demand for the farmer's raw material.

2. Security for Investment Loans

Different considerations are involved in estimating the strength of security offered for investment loans. In the first place, specific security is usually required, whereas, general or personal security is more commonly offered for operating loans. In the second place, investment loans are made for several years and the soundness of the security must be measured from the long-time point of view. Hence the strength of security depends chiefly on maintaining the value of the property mortgaged.

Farm Land. Mortgages on farm land have long been recognized in this and other countries as being one of the very safest types of investment to be found. They are listed by many of our states as second only to government bonds as desirable investments for savings banks, insurance, trust and other companies which are required by law to seek safety above all else in the investment of their funds. The enviable reputation of the farm mortgage as a safe investment is based fundamentally on two factors, *viz:* the limited supply of productive land and the tendency of the demand for products of land to increase as population increases.

But we do have foreclosure of farm mortgages; occasionally the banker or the investor loses a part of his investment. In spite of the relatively fixed supply of land and an increasing population, the price of farm land sometimes falls and the mortgage investor finds himself with insufficient security. In fact, the total market value of farm land in the United States decreased about 25 per cent from 1920 to 1925.[1] That is to say, the price of land fixed on the market sometimes becomes higher than the actual demand and supply conditions warrant. Prices were thus inflated in 1920. Buyers overestimated the value of land as measured by its future earning power. Thus, while the stability of supply and demand is the fundamental basis of the soundness of the farm mortgage, it is highly significant that supply and demand be interpreted or measured accurately and that loans be made accordingly. There are then two supplementary factors in the safety of farm-mortgage loans: (1) a value must be placed on the land which is commensurate with its earning capacity over a long period of time and (2) the loan must be of such size that, even though unexpected conditions should arise to cause a decrease in the value of land, the investor has a fair margin of safety.

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[1] As in the discussion above, farm property prices for the country as a whole are considered. As a matter of fact, prices increased much more in some sections than in others and, likewise, decreased more in some sections than in others. Thus, from 1910 to 1920 the increase in the average value of farm real estate per acre ranged from approximately 28 per cent in the Mountain states to 122 per cent in the South Atlantic states. Similarly, the decrease in value after 1920 was irregular over the country. In fact,

The prevailing practice of lending only 40 to 50 per cent of the value of the land has done much to establish the present reputation of the farm mortgage for safety. On the other hand, the practice in the Middle West and the Southwest in the 'seventies and 'eighties of lending a much higher percentage of the value of the land greatly retarded the development of the farm-mortgage business.[1] During the so-called "farm-mortgage craze" of the 'eighties, loans were made which were approximately equal to the value placed on the land. Moreover, the value placed on the land was far above what the conditions actually warranted, as was seen a few years later. The result was bankruptcy for many farm-mortgage bankers, losses to thousands of investors, and the temporary disrepute of the farm mortgage as an investment. The experiences of the 'eighties and of the period since 1920[2] illustrate very well the necessity of accuracy in estimating demand and supply conditions—of a conservative valuation. With conservative valuations and a good margin between value and the amount of the loan, the investor's chance of loss on a farm mortgage is very small.

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there was an increase of about 6 per cent in the New England states. On the other extreme, the decrease in value in the Mountain states was approximately 39 per cent. See U. S. Dept. Agr., *Circ.* 60, pp. 38 and 42.

[1] HERRICK, M. T., and R. INGALLS, "How to Finance the Farmer—Private Enterprise—Not State Aid," Chap. 2.

[2] There were approximately 53 forced sales per 1,000 farms, due to foreclosure, bankruptcy, and similar circumstances, during the 3 years from Mar. 15, 1925, to Mar. 15, 1928. See U. S. Dept. Agr., *Circ.* 60, p. 44.

Compare, for instance, the stability of the demand and supply of farm land and city real estate. On the whole, city real estate is subject to greater and more sudden increases and decreases in value. The price of city real estate is based largely on location or site, and it is often subject to abrupt and wide fluctuations, while the price of farm land is based chiefly[1] on soil and climatic conditions which are relatively fixed. Again, compare the stability of the value of farm land with that of industrial plants. As in the case of city real estate, if not to as great a degree, the value of a factory is greatly affected by the location. A shifting of the manufacturer's market or the depletion of a conveniently located supply of raw materials will greatly decrease the value of his plant because of the great difficulty and expense of moving it. Also, manufacturing machinery is subject to sudden decreases in value because of the invention of new types of machinery. Furthermore, as was explained above, the demand for many manufactured products is subject to sudden change; whereas the products of the farm are basic raw materials, the demand for which is relatively stable. A mortgage on farm land then seems to have certain elements of basic soundness which are not found in the mortgage on city real estate or in the mortgage on the manufacturing plant.

The uncertainties of production and the price of agricultural products were discussed above as the chief weaknesses of security for operating loans. But in the case of loans made for a period of years, the uncertainties of a particular year are less significant. Here, the average production and price are more significant. It is important, of course, that the borrower be able to make regular interest payments, but failure to make an interest payment on an investment loan is far less serious than the failure to pay the principal of an operating loan. If the average income is adequate to make payments of interest and principal, the borrower can either be carried over a poor crop year or obtain a temporary loan to meet the annual payment.

The uncertainties of farm production are also less significant to the farm-mortgage banker than to the deposit banker because the former has a wider geographical distribution of loans. Usually the farm-mortgage banker operates over a considerable territory. It is common for the banker to make loans in two or more states. In this way, the risk of crop failure is distributed and the banker is fairly certain of a good percentage of annual payments from borrowers. The local banker, on the other hand, stakes everything on a small community. One flood, one hailstorm, or a local drought, may prove destructive to his business. His situation is somewhat comparable to that of a fire insurance company which places all its risks in one town.

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[1] Obviously, farm land values are affected by such factors as the development of transportation facilities, but they are less sensitive to such development than are city land values.

So much for the strength of the farm-land mortgage as security for loans. There has long been, and still remains, an outstanding weakness—the lack of marketability. The ready salability of an investment means much to the investor. He is often willing to forego a high interest rate or some degree of safety in order to obtain an investment which can be sold readily in case of necessity. There is no fundamentally sound reason why the farm mortgage can not be made readily salable, since the interest rate paid is notably high when its basic safety is considered. Two factors have prevented the ready marketability of farm mortgages: (1) the failure to develop market machinery, and (2) the lack of standardization of farm-mortgage security. There is no market for farm mortgages in any way comparable to the New York Stock Exchange—the great central market place for the stocks and bonds of business concerns in industries other than agriculture. But standardization of the security is a prerequisite to the development of market machinery through which owners of farm mortgages can readily reach the buyers of the country. The failure to develop marketability has been a great handicap in farm-mortgage financing. It has made necessary the payment of an interest rate out of all proportion to the safety of the investment. Marketability will be taken up more fully below under the discussion of standardization of farm security.

Mortgages on Other Farm Property.—Mortgages on farm buildings, machinery, automobiles, and livestock can scarcely be placed in the same class with the farm mortgage as security. It was explained in Chap. IV that the value of these types of investment capital characteristically decreases as time passes, while the value of land tends to increase. Thus before a 20-year loan is paid off, the building mortgaged will probably have lost most of its usefulness. Farm buildings are often neglected. Repairs are delayed or never made, and many farm houses are never painted. Relatively few farm houses are insured against fire. That farm buildings have low value as security for long-term loans is indicated by the fact that the federal land banks will lend only 20 per cent of their value with the special requirement that they be insured against fire and kept in good repair. Some mortgage, insurance, and trust companies will allow nothing on the value of buildings in making farm-mortgage loans.

Farm machinery and automobiles are used for security on the shorter term loans. They are subject to rapid depreciation partly because of their nature and use and partly because of lack of proper care. It is quite common for farmers to leave their machinery out in the open, unprotected from the elements. The same is often true of automobiles. Hence, the banker or merchant who takes a mortgage on machinery and automobiles must require a rather heavy initial payment and complete payment within a very short period of time.

Livestock is not used very extensively as security for investment loans. Livestock is subject to accident and disease and to rapid depreciation in value after maturity. Dairy cows, beef cattle, sheep, and goats are ordinarily better security than horses and mules because of their sale value for meat after their regular period of usefulness is past.

THE STANDARDIZATION OF FARM SECURITY

Probably the greatest handicap which agricultural credit suffers is the lack of standardization of security. Investors whether they be bankers, other business concerns, or individuals seek security which has a ready sale, as well as safety. The sale of security can be made to best advantage only through access to a wide market, and a wide market can be had only in case the security is well known. The stocks and bonds of industrial concerns and railroads and the short-term notes of merchants in the form of "commercial paper" or the "trade acceptance" have an ever-widening market because the security is well known. The security back of stocks and bonds listed on the New York Stock Exchange may easily be examined at any time by dealers on the Exchange. Financial statements of the corporation are available at all times, and if desirable the officials of the Exchange can make special investigations of the actual condition of the corporation. Buyers and sellers are continually making estimates of the value of security. Likewise, prime commercial paper or trade acceptances are well known. In fact, an important branch of the commercial banking system—the commercial paper house—has been developed for the purpose of buying and selling this paper. These "note brokers" are continually seeking buyers and sellers of commercial paper.[1] "Commercial paper" has a definite meaning in the money market. It signifies that somewhere in the merchandise markets of the country there is a definite quantity of goods which can be sold readily to cover the note or acceptance.

In contrast, what does the farmer's short-term note or farm mortgage mean? Who knows what a particular note or farm mortgage means in the way of security? Generally, only the local banker and the farmer know and often this is only a vague estimate. Such vague, uncertain, and restricted knowledge of security inevitably prevents sale in a wide market, and accounts in part for the high interest rates commonly paid on farm loans. The limited knowledge of farm security also is a partial basis for the wide variation of interest rates in different sections of the country.

Standardizing the Farm Mortgage.—Two things are necessary before the farmer can obtain the full advantages of a wide market for his security: (1) uniform methods of appraisal of his security must be adopted and (2) an accurate financial statement of his business must be easily available at all times. Thus if it were widely known that the farm mortgage always means that farm land, conservatively appraised, equal in value to twice the amount of the mortgage, exists as a guarantee for the loan, investors would have no fears—either of the ultimate payment of the loan, or of the ready salability of the security. The federal land banks are making a beginning in accomplishing this very thing for the farm mortgage. They not only maintain a uniform standard of conservative land appraisal for the whole country, but also guarantee each investment by pledging the capital and earnings of the whole system of banks. There is some evidence that the regular private mortgage bankers are also making some progress in standardizing the farm mortgage. Much remains to be done. The great number of foreclosures of farm mortgages in this country from 1920 to 1925 indicates that loan policies can be improved. Probably much of this wasteful procedure could be prevented by keeping in closer touch with the financial situation of the borrower. Probably foreclosures and losses to investors could be reduced by more conservative appraisals. Also, it is possible in the future that farm-mortgage bankers will be able to foresee a fall in land values such as that which occurred from 1920 to 1925.[1]

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[1] For a discussion of the origin and development of note brokerage, see C. A. Phillips, "Bank Credit," Chap. 7.

The fact that federal and joint stock land banks and a few of the farm-mortgage companies place their own guarantee on the mortgages gives the farm mortgage an advantage over industrial and railroad bonds. Farm mortgages also pay a higher rate of interest, but they lack marketability. It is probable that some time in the future they will be listed on the big security exchanges of the country, or possibly special farm-mortgage exchanges will be developed. At any rate, standardization of appraisal methods is a necessary prerequisite to the establishment of a wide market. Moreover, the investor and the banker must be able at all times to ascertain the financial condition of the borrower.

Standardizing Security for Operating Loans.—Security for farm-operating loans can probably never be as highly standardized as is commercial paper. A large part of this security is in the form of personal notes and no specific property is mortgaged, whereas with the merchant there is always a finished and salable stock of goods. But the loan policies of bankers can be made more uniform than they are at present. They can also be made more conservative. The federal reserve banks are attempting to achieve both purposes by the requirement of a financial statement before rediscounting farm paper. A more extensive use of farm paper by the thousands of member banks throughout the country for rediscounting purposes should result in a fair degree of standardization of short-term farm production paper. To achieve such standardization many country bankers will be forced to make more conservative loans and farmers will be compelled to keep records of their business. Both practices would probably be beneficial to the bankers and farmers in many ways, aside from the creation of a wider market for farm paper.

A commendable start has been made in the standardization of the paper of farmers' cooperative marketing associations through the use of the warehouse receipt. The cooperative cotton-marketing associations, for instance, are able to obtain loans directly from large central banks of the country by the use of receipts from standard warehouses. Warehouses are inspected by federal or state officials who require a certain standard type of building which protects the cotton from the elements and which is relatively fireproof. Furthermore, the warehousemen are duly bonded and the cotton is insured against fire. Notes secured by the receipts of such warehouses and with such staple and marketable products as cotton, corn, wheat, or tobacco, find an easy money market anywhere. Unlike the loans made on a prospective crop, the crop here is already produced and in salable form.

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[1] The Census for 1925 indicates that the total value of farm property in the United States had decreased approximately 25 per cent since 1920.

Questions and Problems

1. Contrast general or personal security with specific security.

2. Compare the importance of net worth, prospects for income, and personal characteristics of the borrower as bases for loans.

3. How does one-crop farming affect interest rates on farm loans? Explain.

4. What are the leading factors which determine the kind of security offered for loans?

5. Compare the security offered by farmers for operating loans with that offered by merchants and manufacturers on the basis of (*a*) the desirability of the term of the loan for the deposit banker, (*b*) the marketability of the note, and (*c*) the safety of the loan.

6. What are the fundamental bases of safety of the farm-mortgage investment?

7. What is the meaning of the phrase "standardization of farm security?" Why is standardization desirable?

8. What is being done toward the standardization of farmers' short-term paper, and how can further standardization be accomplished?

9. Should farm mortgages be admitted on the New York Stock Exchange?

References for Further Reading

Moulton, H. G., "The Financial Organization of Society," 2nd ed., pp. 100–102.

Phillips, C. A., "Bank Credit," Chap. 14.

Steiner, W. H., "Some Aspects of Banking Theory," pp. 82–87.

CHAPTER VIII

THE APPRAISAL OF SECURITY FOR OPERATING LOANS

In the process of making a loan, the banker must make an estimate of the borrower's personal characteristics, of the value of his property less his indebtedness, and of his prospects for income. In Chap. VII, the farmer's security was described in a general way and compared with the security in other industries; here his security will be considered from the standpoint of the lender in determining its loan value in specific cases. A farmer comes to the banker or the merchant for credit. He may be a good credit risk for $10,000, $5,000, $1,000 or $100, or he may be a poor credit risk for any amount. Just what information does the banker need in passing judgment on a credit risk? How does he get the information? How does he determine the amount which can be safely advanced?

It is probable that from two-thirds to three-fourths of all farm-operating credit is obtained on personal security.[1] This security takes the legal forms of plain personal notes, personal notes with one or more indorsements, and open accounts. Merchant credit is commonly extended on charge accounts, although in many cases a note or even a mortgage is required. The indorsed note is rapidly losing its popularity with bankers and is being replaced by the unindorsed personal note and the personal note secured by collateral. In 1880, approximately 75 per cent of the loans of all national banks were secured by indorsed notes, while, in 1924, only about 35 per cent were so secured.[2] During the same period, the percentage of national bank loans made on single-name paper without collateral increased from 5 to 25. Although these figures show the trend for all national bank loans, it is evident that loans to farmers have had a part in the trend toward a more extensive use of single-name paper.[1]

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[1] A survey covering the operations of commercial banks in 1923 indicates that two-thirds of the short-term loans to farmers were secured by personal notes, with and without indorsements. See U. S. Dept. Agr., *Yearbook*, 1924, p. 223.

[2] PHILLIPS, C. A., "Bank Credit," p. 129.

The shortcomings of indorsed paper have resulted in the increased use of collateral security, as well as single-name paper without collateral. Thus the national bank loans secured by collateral increased from about 15 per cent of all loans in 1880 to 38 per cent of the total in 1924.[2] But the indications are that this development occurred chiefly in the commercial loans of these banks, since the farmer has little collateral, such as warehouse receipts, stocks, and bonds, to offer. With a decrease in the use of indorsed paper there have been two alternatives for the farmer, *viz:* to substitute his personal note or to give a chattel mortgage. There is no indication that the latter practice has increased. On the contrary, judging from the available information on the subject, the use of the chattel mortgage as security for short-term farm loans is actually decreasing.

PRESENT METHODS OF OBTAINING CREDIT INFORMATION

There is a great variety of methods of acquiring credit information, as well as a great variation in the degree of completeness and accuracy of the information obtained. Methods range from those of the small, one-man bank, which depends on the personal knowledge and the memory of the executive in charge, to those of the large city bank with its highly organized and specialized credit department.

Methods of Country Bankers.—The country bank[3] is commonly a small institution. Its lending function is usually performed solely by the cashier or some other official who may be in active charge of the bank. Practically all credit information which is used as a basis for loans is "stored away" in the mind of this executive. Of course the directors of the bank supervise its general policies, but the everyday business of analyzing individual credit risks is in the hands of the active executive. It is he who determines whether Farmer Jones will get a loan of $100, $1,000, or no loan at all. Just how does he get his information about Jones? How much information in fact does he actually get? Through what process of analysis does he arrive at the conclusion that Jones shall get a $300 loan instead of the $500 for which he applied? He has no complicated system of determining credit risks. He knows that Jones is an honest man, that he pays his notes promptly or makes arrangements for their renewal before they are due. Jones has a fair equity in his farm and is recognized as a good farmer. His debts are such that under ordinary crop and price conditions he should be able to pay the loan under consideration without great difficulty. If crop and market conditions are fairly good, he usually gets the full amount requested. On the other hand, if crop prospects are poor, the banker tends to scale down the loan. The banker explains that "money is tight."

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[1] A recent study made in Texas indicates that 26 per cent of farmers' short-term loans from banks were obtained on unindorsed personal notes. See Tex. Agr. Exp. Sta., *Bull.* 351.

The increasing use of the unindorsed personal note is due to several factors: First, bankers have come to realize the uncertainty of the value of an indorsement; second, the difficulty of collecting from indorsers; third, indorsed notes are likely to supply the banker with past-due paper; fourth, more credit information concerning the borrower is available. See C. A. Phillips, "Bank Credit," p. 247.

[2] PHILLIPS, C. A., "Bank Credit," p. 129.

[3] The term "country bank" here indicates the small-town bank which deals extensively with farmers, and not "country bank" as defined by the National Banking and Currency Act.

This haphazard system of judging credit risks is sometimes highly successful, depending largely upon the man in charge of the bank. The bank may be highly successful under one management and a flat failure under another. Successful banking under such a system of determining credit risks is possible only by using the utmost care in the selection of the official in charge. He not only must be an expert at estimating risks, but also he must be familiar with the personal characteristics and the financial conditions of his customers.

The Credit Department of the City Bank.—In sharp contrast to this system of determining credit risks is the method used by large city banks. In large centers of population where the bank's customers are numbered in the thousands and ten thousands rather than hundreds, and where customers follow dozens of occupations, the simple system of the small-town banker is impossible. The personal knowledge of one man is too limited to cope with the situation. A written record of each customer must be substituted for the memory record of the loan executive.

The expansion of the business of city banks, in and out of the city, and the need for more accurate credit information led to the establishment of specialized credit departments beginning in the last decade of the last century. Also, the increasing use of single-name paper has greatly emphasized the need for more complete and accurate credit information. It has become impossible for city-bank executives to depend entirely on their personal knowledge of the customers of the bank. They require new means of acquiring information and new methods of analysis and interpretation. They have come to rely largely on the accumulated evidence filed away in the credit department. The organization and work of the credit department have been described by several writers.[1] Stated very briefly, the functions of a credit department in so far as they correspond to functions performed by a country bank are as follows: (1) the collection of information of all kinds regarding present and prospective borrowers of the bank; (2) the analysis, classification, and filing of this information in such manner that the bank executive can easily and quickly pass judgment on the borrower as a credit risk; (3) keeping a record of the average balance which the borrower maintains with the bank; and (4) furnishing credit information to individuals, mercantile firms, and other banks which may be interested in the customer's credit standing. The work of the credit department is divided into special divisions according to the size of the bank and the extent of the work of the department. For example, a well-organized credit department in a large bank may be divided into the following subdivisons: investigation, analysis, filing, stenographic, and correspondence.[2]

The leading sources of information of the credit department are:[3] (1) interviews with borrowers; (2) financial statements of borrowers; (3) mercantile agencies, such as R. G. Dun and Company and Bradstreet's;[4] (4) interchange of credit experience with other bankers or merchants who have had business relations with the borrower; (5) credit exchange bureaus, such as that of the National Association of Credit Men; (6) financial publications and the financial columns of newspapers; and (7) special trade directories, such as the "Textile Trade Directory," the "Fertilizer Trade Handbook," and the "Cotton Shipper's Handbook." Since the credit standing of the customers of the bank is continually changing as their business prospects and financial positions are altered, the employees of the credit department have the continuous task of keeping up-to-date information on regular customers. Also, as new customers are acquired, information affecting their credit standing is sought from all possible sources. With such information at hand, the ready response of the banker on a request for a loan is not based on snap judgment or a banker's intuition, as the uninitiated sometimes suppose. The major part of the credit information is often collected and filed away before the individual or firm in question actually becomes a customer of the bank. Indeed this is an important method of determining the desirability of prospective customers.

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[1] See MUNN, GLENN G., "Bank Credit, Principles and Operating Procedure"; PRUDDEN, RUSSELL F., "The Bank Credit Investigator"; WESTERFIELD, RAY B., "Banking Principles and Practice," Vol. IV, Chap. 47; and KAVANAUGH, THOMAS J., "Bank Credit, Methods and Practice."

[2] See KAVANAUGH, THOMAS J., "Bank Credit, Methods and Practice," Chap. 12.

[3] From WESTERFIELD, RAY B., *op. cit.*, Chap. 47.

[4] MUNN, GLENN G., "Bank Credit, Principles and Operating Procedure," Chap. 10.

The methods used by the small country bank and the large city bank illustrate very well the difference between guesswork and scientific method in determining credit risks. This does not mean that the country banker's guess is not accurate in innumerable cases, nor is it maintained that the scientific method of the city bank is always successful. The point is that the small banker's estimate of a credit risk is commonly derived from rather vague estimates of the facts regarding the customer, while the banker with an efficient credit department estimates credit risks on the basis of specific facts. The question arises: Are the methods of the city bank possible and desirable for the country bank?

A CREDIT DEPARTMENT FOR THE COUNTRY BANK

Although the credit department has become an essential part of the organization of the large city bank, such an elaborate arrangement is both impracticable and unnecessary for the country bank. In the first place, the country bank is too small to permit such specialization. The great majority of the banks serving farmers have relatively few customers and have a capital stock of only $10,000 to $100,000. Frequently the official in charge of loans is also cashier, teller, and sometimes bookkeeper.[1]

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[1] An investigation made a few years ago indicated that 25 representative banks of New York City employed a total of 1,118 persons in their credit departments. See PRUDDEN, RUSSELL F., "The Bank Credit Investigator," p. 11.

The small size of our country banks has been given as one of the causes for so many bank failures during the depression following 1920. Also the small size of our country banks has often been used as an argument for an extensive branch banking system for this country similar to that of Canada and England. It is pointed out that the large central bank would be able to take over much of the work which is now being done in small units and thereby greatly reduce the overhead expenses of the whole system. The small banking unit has also been considered responsible in part for the high interest rate paid by farmers in certain sections of the country. At least it is obvious that a bank which is burdened with the overhead expense involved in maintaining a small building, scant equipment, and a handful of employees is in no position to establish an elaborate credit department.

In the second place, since the country banker has relatively few customers, he finds it comparatively easy to become familiar with the business and personal characteristics of each borrower. That is, the great problem of knowing thousands of customers and the details of their business which forced the city banker to establish the credit department has not yet needed solution by the country banker. He is still able to get along by keeping credit information "in his head."

In the third place, the farmer customers of the country bank are seldom able to make accurate financial statements of their business. The banker is thus forced to estimate the credit risk on a more personal basis than is the city banker.

In the fourth place, it might be maintained that the farming business is such that credit risks cannot be calculated accurately and objectively. Credit is extended on the prospects for a crop, whereas in the case of the merchant there is a tangible supply of salable goods.

Fortunately, however, there is a middle ground between the practice of the country banker in depending on his personal knowledge of customers and that of the city banker in depending on a great credit information machine. The alternative for the country banker is a simple, small-scale credit department. The chief ends to be attained are (1) more information, (2) greater accuracy in the information obtained, and (3) the substitution of written records for the memory in preserving credit information.

The trend in country banking at present is distinctly toward the use of more scientific methods of analyzing credit risks. The very fact that the country banker's business is small makes it necessary that he use extreme care in avoiding losses on poor credit risks. If his loans are few, their safety must be guarded all the more. The recent agricultural depression has closed the doors of hundreds of old-style country banks whose executive officers made loans on a wild guess at the actual, as well as the potential, financial position of the borrower. The first interest of the banker is to maintain his own solvency, even if it involves shutting off loans to farmers who are playing a losing game. On the whole, bankers have been too free in assisting in the development of sections which are not adapted to agriculture, or in the premature development of new agricultural sections. Conservative loan policies contribute to a gradual and stable development, while liberal loan policies are often an important factor in the overdevelopment of new farming regions. It is true that farmers can be "carried over" from an incidental crop failure without serious loss to the banker, if the farming business of the region is fundamentally sound; but even then the banker must use care in selecting his risks among the farmers of the community and make loans in such amounts as to guard the safety of his funds. The banker can better protect his funds by a closer study of the general agricultural conditions of his community and a more scientific appraisal of the security back of individual loans.

Also, more discrimination in the extension of loans is imperative to the progress of farming communities. Country bankers in the South, in particular, make loans rather promiscuously. They seem to be impressed with the obligation of distributing their loans more or less equally over the community, rather than refusing the poorer credit risks and amply supplying the needs of the better type of borrowers. There seems to be a feeling that the farmers of the community must be "carried." The chief distinction made between the better risks and the poorer risks is that loans are made to the latter somewhat more sparingly. Also, more care is used to bind the chattels and crops of the latter. The investigation of the doubtful risk commonly consists of an inquiry as to the acreage of the "money crop" and the teams and other livestock which are available for mortgage, rather than an analysis of the borrower's farming methods.

Little or no difference is made in the interest charges for the good risk and the poor risk. A common rate is maintained which is in reality a kind of blanket charge designed to cover risks *en masse*. The obvious result is that the more ambitious and efficient farmers bear the burden of a high "community rate," the shiftless farmers are carried, and the banker's vault is cluttered with chattel mortgages.

Such a system of credit extension not only helps to perpetuate certain uneconomic farm practices, but it actually tends to prevent the application of improved methods. For illustration, the system is detrimental to a diversification program. Why, for instance, should the farmer who is fairly content with a subsistence income be worried about producing his own meat, poultry products, and vegetables, or even his feedstuffs, if the banker or merchant can be depended upon to carry him? In the South, the one-crop system has been perpetuated in part because of the credit system. Bankers and merchants frequently require borrowers to produce cotton in order to pay loans which were obtained to buy products which should have been produced on the farm. Also, the credit situation is one of the most serious obstacles to the cooperative marketing program. This is particularly true in the Cotton Belt. Easy credit, particularly for consumption purposes, has bound the cotton farmer to his local banker and merchant in such manner that the cooperative concern finds great difficulty in breaking up the old system of selling to local buyers immediately after the cotton is ginned. The farmer finds his equity in the cotton so nearly consumed by debts that the initial advance of the cooperative is insufficient to satisfy local creditors. This has probably been the most embarrassing situation which executives of the cotton cooperative marketing concerns have had to face. Many other illustrations could be given, but these should indicate the advantages which would accrue to the farming community through a discriminating loan policy which would supply the better type of farmer with cheaper and more adequate credit. The credit at the command of the banker should be extended only to individuals who can give definite evidence that their business is a going concern—that their prospective income is amply sufficient to cover the loan. In other words, it should be recognized that credit analysis is more than a count of chattels.

Banking conditions vary so much in different sections of the country and among the different individual banks that no definite plan for collecting and keeping credit records can be outlined which is applicable to all country banks. Furthermore, the suggestions made here are not designed as a definite program for any bank, or set of banks; but merely to point out the elements of security back of the personal note and the open account, the necessity of careful analysis of these elements, and some possible ways of getting the required information.

Elements of Personal Security.—The more important bases of credit are as follows:

1. Personal characteristics of the borrower:
    a. Honesty.
    b. Promptness in paying debts.
    c. Ability to produce income.
    d. Thriftiness.
2. Net worth of the borrower:
    a. Nature and value of property.
    b. Nature and amount of indebtedness.
3. Prospects for income:
    a. Past gross income.
    b. Past operating expenses.
    c. Condition of crops and livestock.
    d. Adequacy of capital and labor.
    e. Market conditions.

The most prominent consideration in the analysis of security for operating loans is the personal qualities of the borrower. In fact, the personal element is so important that such loans are commonly called personal loans in contrast to mortgage and collateral loans which are made on specific security.

Personal Qualities of Borrowers.—The leading personal qualities to be considered in the borrower are honesty, promptness in paying debts, ability to produce income, and thriftiness. The first two have to do with willingness to pay obligations without delay, while the latter two have to do with the ability to produce income and the wisdom to use it properly. The banker commonly obtains information on these points by observation and by reports from former creditors and from other customers of the bank, and "stores it away in his head." This rule-of-thumb method can well be improved upon, in the first place, by increasing the accuracy of the information, and, in the second place, by placing it in a permanent file rather than depending on the memory.

For new customers the banker might increase the accuracy of his credit information by the use of more formal and detailed statements from former creditors. This is all the more important, since the new farmers are often of the ever moving and shifting class, who supply the banker with his poorest credit risks. It should become a practice among bankers to require each new customer coming into the community to bring a certified and detailed statement from his former banker or merchant creditor. This statement should contain general information as to the customer's integrity, a specific statement of his production and income for the past year, or better, several years, and a financial statement indicating the nature and value of his property and the nature and amount of his indebtedness. Such a business statement would be an excellent substitute for the recommendation of a trusting friend or even the brief statement of credit rating made by a former creditor. There should be little difficulty in making a statement of the financial standing of the farmer who has arranged his affairs in one community in preparation to move to another. Even if in the regular run of business he is unable to make an accurate estimate of his assets and liabilities, he should be able to do so at the time of moving.

For old residents of the community who have been customers of other banks, similar statements might be provided. There might be, of course, some difficulty in securing such statements from competing banks. Anyway, a careful personal investigation of the new customer's affairs is desirable. His reputation for honesty may be well known to the banker. If not, it may be learned from merchants and other customers of the bank who have had business relations with him. His habits of promptness, or the reverse, may be ascertained through his merchant creditors or through his former banker. His farming ability and his thriftiness may be determined by an investigation of the history of his operations over a period of years. What has his average production been? Has he been improving his equipment? Has he been adding to the permanent improvements of the farm? Has he been keeping up the payments on the long-term indebtedness which he may have? In other words, has he been making a good income and has he been using it in a way to increase his future income?

A detailed record should be kept for the regular customers of the bank for the use of the banker and other creditors with whom the customer may desire to establish relations. Suggestions for the content of this record are made toward the end of this chapter.

The Net Worth of the Borrower.—Although personal integrity and ability are the primary bases for personal credit, the net worth of the borrower is a significant part of general security. The unencumbered property of the borrower forms a background of security which is available in case of emergency.

Nature and Value of Property.—In case of the necessity of liquidating the farmer's assets to pay his debts, the first question which arises concerns the salability of his property. Is it largely livestock and machinery, or land and buildings? If the former is the case, what is the type and condition of the livestock and machinery? If the property is chiefly land and buildings, is the land productive and are the buildings in good repair? That is, will the property attract buyers in case it becomes necessary for the borrower to liquidate?

The second consideration here is that of sale value.[1] In placing a value on property the banker is forced to place the value at what it could actually be sold for on the market, and not what it may be worth to the borrower. Furthermore, it must be considered that property sold by forced liquidation is sold on an unusual market. Forced sale means a lower price since buyers at auction expect to get a bargain. This fact is often overlooked in estimating the credit risk of property owners.

In connection with the valuation of property the question of insurance is important. The amount of fire and other insurance on buildings and other insurable property can easily be ascertained at the time of making the loan. Buildings which are not insured against fire are subject to a considerable reduction in value for security.

Nature and Amount of Indebtedness.—The actual value of property as a basis for general security is obtained only after all debts of the borrower are deducted. As a matter of fact the debts contracted during the period of the loan under consideration must be added. Indeed, all the property may be mortgaged the next day after the bank extends the loan on a personal note. But the banker must take a chance on the creation of other debts before his loan is paid. He estimates only the net worth of the borrower at the time the loan is extended.

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[1] The subject of property appraisal is taken up more fully in Chap. IX.

In the first place, the banker wants to know the obligations of the borrower for the current year. That is, how much of the indebtedness is for a short term and, therefore, due to be paid from the current year's income? Also, if there are long-term debts, what is the amount of interest and principal which must be paid this year? In the second place, he desires to know the total net worth of the borrower's property after all debts are deducted. In the third place, and more specifically, he desires to know the ratio of the value of unmortgaged property to the personal debt. That is, what is the relation of the value of all unmortgaged property to the amount of all loans which have been obtained on general security? This ratio is particularly important, since mortgaged property may be tied up for many years before any of its value can be used to pay off personal notes. For practical purposes it is only the unmortgaged property which serves as security for personal credit.

Prospects for Income.—Loans are expected to be paid from income and not from the sale of investment capital, or property. The banker is particularly careful not to make loans the payment of which will require the sale of property. The property of the borrower is looked upon as a possible source of payment in case of emergency, *i.e.*, in case personal qualities or the prospects for income have been overestimated. It is the aim of the banker to limit his loans according to the income of the borrower.

Then, after the banker has satisfied himself as to the personal integrity and ability of the prospective borrower and has estimated his net worth, he has the specific problem of studying his business prospects. This problem is more intangible and in many ways more difficult than either of the other two. The difficulty of estimating farm income is due chiefly to the uncertainties of agricultural production. In the case of loans to merchants, the banker can determine the credit risk rather definitely from the merchant's financial statement. Ordinarily, the merchant is considered a good credit risk if the ratio of his quickly salable assets, or goods, to his current liabilities is 2 or 3 to 1. But even if the farmer were able to present a complete and detailed financial statement of his business there would scarcely be any quick assets or current liabilities in the sense that the merchant has such assets and liabilities. In their stead, the farmer has potential assets which he expects to become actual assets at the end of his producing season, and he has liabilities which likewise become current at the end of the year. Then the banker has the problem of estimating what the farmer's quick assets and current liabilities will be six months in the future, whereas, in the case of the merchant, the banker merely analyzes the situation as it is. It will be recalled here that in Chap. VII it was pointed out that farm security for operating loans differs from that of the merchant and the manufacturer in that the farm product is of no value until it is finally produced. The farmer has salable assets and payable liabilities at the end of the producing period, and the banker must make an estimate of the assets and liabilities months in advance.

Methods of estimating the income and the liabilities for the year vary from the most haphazard, or no estimate at all, to a systematic analysis of the borrower's prospects. The purpose here is to point out a few factors which should be considered in any scientific estimate of the farmer's probable financial condition several months hence.

Past Income.—The current financial position of the borrower at the end of the harvesting or marketing season is an excellent indication of his ability to produce net income. If the banker can determine the gross income and indebtedness of the borrower from his credit records for each of the past five years, for instance, he is in good position to make an intelligent estimate of what to expect this year. Suppose the average annual sales of crops, livestock, and livestock products amounted to $2,000 and the average indebtedness was $1,000. His situation would be similar to that of the merchant whose financial statement shows a ratio of quick assets to current liabilities of 2 to 1. There is this difference: the quick assets of the merchant are probably more certain of realization than is the farmer's income for a particular year, depending upon the condition of the crop and the market at the time the loan is made.

Past Operating Expenses.—In order to determine the probable net income, the banker must know something of the borrower's expenses of production and his necessary consumption expenses. The latter can be estimated with a fair degree of accuracy from past experience. Expenses involved in production are made up largely of wages, interest on loans, taxes, rent, repair bills, and the feed bill, all of which can be estimated in advance.

Condition of Crop and Livestock.—The banker usually knows more about the general crop conditions than does any other man in the community. It is a part of his business to keep in close touch with the progress of the crop. The individual farmer knows the condition of his own crop and, incidentally, that of a few of his neighbors. The cash merchants of the community have no direct interest in crop conditions, except in so far as a very poor crop or a very good crop would cause them to decrease or increase their stock. The credit merchant ordinarily serves a smaller percentage of the farmers of the community than does the banker and is to that extent less interested in the crop prospects of the community.

But the banker's knowledge of crop and livestock conditions of the community as a whole is insufficient. It is to his interest to know the specific conditions and stage of progress of each borrower before a loan is extended. Is his livestock in good, healthy condition? Is his crop up with the season, or is he behind planting or cultivating? Is his crop clear of insect pests or disease? It is only when such questions as these are answered that the banker or credit merchant can feel safe in his extension of credit.

Adequacy of Capital and Labor.—The amount and quality of land, equipment, and labor have an important bearing on prospective income. The banker can estimate their adequacy from the statement of property values on the record sheet and by an interview with the farmer at the time the loan is made. The extent of his general knowledge of the production requirements of the community will largely determine his ability to estimate the capital and labor needs of the individual farming unit.

Market Conditions.—Since income depends in a large measure on the price received for products, prospective market conditions are significant in determining the banker's loan policy. Hence the country banker is directly interested in the market conditions for the various farm products of his community. The wide-awake country banker is a close student of the crop and livestock reports for the country as a whole and even in world crop and livestock conditions. He will keep a watchful eye on the trend of price quotations of the produce exchanges and the futures markets. If the general crop and livestock reports indicate a big supply and a downward price trend, he will adjust his loan policy accordingly. In other words, his knowledge of market conditions for the farm products of his community forms a part of the general basis for a liberal or conservative loan policy, as the case may be.

But price movements of farm products can be interpreted and forecast only in the light of general business conditions. Far from being isolated phenomena, farm-price movements are only a part of the more comprehensive movement of the business cycle.[1] The country banker should be familiar with the basic factors underlying general business prosperity and depression. Specifically, he must be able to foresee a period of falling prices and restrict his loans accordingly. That the importance of an intelligent interpretation of general business conditions can scarcely be overemphasized is attested by the record of bank failures in this country from 1920 to 1925. The failure of 2,535 banks,[2] or about 8 per cent of the total number of banks in the country, during this five-year period was due largely to misinterpretations of the general price movement. The most common explanation of such wholesale bank failures is that the banks were overburdened with "frozen assets," but as Prof. Fred L. Garlock says in his report on the causes of bank failures in Iowa, the phrase "frozen assets" usually means "doubtful" or "worthless" assets.[3] The "frozen assets" which have been so burdensome to country bankers, since 1920, are in most cases the result of low prices of farm products.

Another explanation of the exceptionally large number of bank failures during recent years is the small size of the banks. Thus, the *Annual Report* of the Federal Reserve Board, for 1926, indicates that approximately 81 per cent of the banks which were suspended that year were located in towns and villages of less than 2,500 population, and that the average capital of the suspended banks was only $35,000. It must be admitted of course that the small size of country banks is a fundamental handicap to banking efficiency, but the fact remains that most of these small banks were in operation prior to 1920 and that failures were infrequent. The experiences since 1920 have simply demonstrated the inherent weakness of the small bank. They

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[1] For a discussion of the relation of livestock loans to price movements, see Forrest M. Larmer, "Financing the Livestock Industry."

[2] Comptroller of the Currency, *Ann. Rept.*, 1925, p. 648.

[3] Garlock, Fred L., "Bank Failures in Iowa," *The Journal of Land and Public Utility Economics*, January, 1926.

Items	1926	1927	1928	1929	1930
A. Business the past year:					
1. Total value of products sold	$ 3,000	$ 2,200	$ 2,500	$ 2,500	$ 2,400
2. Amount spent for investment capital, such as livestock, machinery, and other equipment	400	200	300	250	200
3. Amount spent for permanent improvements	200	100	250	200	150
4. Amount paid on long-term debts	300	300	300	300	300
5. Amount invested in newly acquired land	None	None	None	None	None
6. Expenses for operation and consumption	.....	2,100	1,500	1,750	1,675
B. Financial status:					
1. Estimated value of farm owned	10,000	10,000	10,000	10,000	12,500
2. Estimated value of equipment:					
Livestock	1,300	1,200	1,350	1,400	1,300
Machinery	700	600	650	700	600
3. Indebtedness:					
Short-term	None	100	50	None	100
Long-term	5,000	4,900	4,750	4,600	4,425
4. Amount lent out:					
Short-term	None	None	None	None	None
Long-term	None	None	None	None	None
5. Cash and deposits	750	350	450	400	575
6. Mature products to be sold	400	250	300	200	100
7. Net worth	8,150	7,400	7,950	8,100	10,550
C. Banking habits:					
1. Average balance in bank during past year	100	75	50	70	50
2. Rating for promptness in meeting obligations:					
Excellent	X				
Good	......	......	X	X	
Fair		X			
Poor					X

have demonstrated that the small banker must be all the more careful in the interpretation of price movements because of the limitations of his small-scale business.

The Record Sheet.—Facts concerning the personal qualities, the property, the long-term indebtedness, and the income record of customers should be kept as a part of the permanent records of the bank. These facts could be collected at the first of each year through an interview with the customer. On page 120 is a suggested form for the credit-record sheet to be filled in sometime in January (hypothetical figures are entered for purposes of illustration).[1]

The hypothetical record above indicates that on Jan. 1, 1926, for instance, the customer had property and cash valued at $13,150. His total debt was $5,000, leaving $8,150 as his net worth. During the previous year he had spent $400 for new capital, $200 for improvements, and had paid $300 on his long-term debts. Since the amount of his cash and short-term debts on Jan. 1, 1925, are not known, his operating and consumption expenses cannot be calculated for that year. On Jan. 1, 1927, his net worth had decreased to $7,400. His receipts for the previous year, including $100 of borrowed money, amounted to $2,300. Of this amount he had spent $200 for new capital, $100 for improvements, and $300 on his long-term debt. This would seem to indicate that his operating and consumption expenses amounted to $1,700, but since he has $400 less cash than he had at the first of the previous year, his total operating and consumption expenditures amounted to $2,100.

Such a statement as the above could be written on a record sheet and filed for the use of the banker in making loans. Suppose the banker has kept such a record for several years. Section *B* will indicate at a glance whether the customer is making progress. Section *A* shows gross income and indicates in a general way the purposes for which it is used. If nothing is added to land, equipment, or improvements, and long-term debts are not reduced, the conclusion is that the borrower's operating and consumption expenses are absorbing his total income. If the value of the farm is increasing, item *A*-3 will indicate whether the increase is due to improvements or a general rise in land values. In case it is due to a general rise in land values, the banker must use his own judgment as to the permanence of the higher values. A large percentage of the increase in land values during the war, for instance, was only temporary. Item *B*-2 should show whether the customer has been merely replacing his livestock, machinery, and equipment, or actually increasing it. Item *A*-4 for the series of years indicates the regularity with which long-term indebtedness is being paid. Item *B*-3, first division, and items *B*-5 and *B*-6 show the current assets and liabilities of the borrower. Section *C* shows the desirability of the customer as a depositor and gives him a rating on promptness in meeting obligations.

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[1] See Appendix A for standard form of financial statement required by federal reserve banks in rediscounting agricultural and livestock paper; also, the farmer's financial statement recommended by the American Bankers' Association in 1917. It will be observed that these statements, particularly the former, are more complicated than the simple form presented here.

Additional information regarding the customer could be placed on a supplementary sheet. The banker might find it desirable to keep a record here of the customer's farming methods, his practice in maintaining property and life insurance, his membership in farmers' organizations, etc.

Practicability of Collecting Credit Information.—Certain reasons were advanced in the first part of this chapter for the impracticability of a credit department on anything like the elaborate scale of the city bank. The collection and filing of credit information even on the scale outlined above is likely to strike many bankers as being wholly impracticable for the small country bank. First, it is likely to be objected that the desired information is not available because of the inability of the farmer to supply a financial statement of his business. Second, the cost of collecting and filing credit information may be considered by many as out of the question for a small bank already heavily burdened with overhead costs. Third, many will consider it unnecessary or at least of very little value to the country banker.

Availability of Credit Information.—The chief difficulty is to be found in getting an accurate financial statement of the customer's business. The great question is: How can such information be obtained from farmers the great majority of whom make no attempt to keep accounts? How successful would the banker be in filling out Sec. *A* of the above record sheet? The first item in the list calls for the total value of products sold during the previous year. Most farmers, including the most unbusiness-like, could answer this question with a fair degree of accuracy. One-crop farmers and ranchmen, in particular, would find little difficulty here since most of the products of the year are sold within a very short period of the year. The amount spent during the year for livestock, machinery, other equipment, and for permanent improvements is probably more difficult to estimate, although after an estimate is called for one or two years the farmer is likely to keep some account of such purchases. The item covering payment of long-term debts should furnish little difficulty.

Are the general facts called for in Sec. *B* concerning the borrower's financial status available? Of course credit is never extended by the banker without some knowledge of the borrower's assets and liabilities. The form suggested simply requires specific valuations of the main types of property, notes owed by the farmer, and notes due the farmer. Personal inspection of the farm will probably be necessary to get an accurate estimate of the value of the land and buildings at the time of making the first investigation. Thereafter, the value can be fairly accurately measured by considering the common rate of depreciation of buildings and by the general trend of land prices in the community. The value of livestock and machinery can be estimated by an interview with the farmer. The amount of short-term and long-term obligations of the farmer, as well as the amount due him, should be easily obtained in the annual interview.

The facts and estimates called for in Sec. *C* of the credit record sheet are based primarily on the banker's own records and involve only clerical work in checking up on monthly balances and dates of note payments. In the case of a new customer this information must be sought from his former banker or from merchants with whom he has had credit relations.

The next question is, Will the farmer cooperate? Will he put forth positive efforts to supply accurate credit information, will he negatively submit to the annual interview with the banker, or will he flatly refuse to give such information? Obviously, there are many farmers who may be classified in each of these three groups. This much, however, is true: The banker is in a position to get the highest degree of cooperation which it is possible for anyone to get, since the farmer proverbially looks upon his banker as a wizard in all financial matters.

During the past 15 or 20 years country bankers have put forth commendable efforts in encouraging better farming methods.

Among other improvements, they have advocated better care of the soil, better business methods, and diversified production. It seems that there is scarcely any better advice which the banker can give his farmer customers than that which has to do with business methods. The banker is doubly well fitted to give such advice because he himself has had training in business practice and he has more intimate knowledge of the farmer's affairs than does any other individual in the community. The annual interview for the purpose of filling out the record sheet should be an excellent bit of training in business methods for the farmer. Also, it should be a stimulant to induce him to keep records of his business.

Cost of Collecting Credit Information.—Costs are high only when compared with the services rendered. If the advantages of systematic credit records are equal to or greater than the extra cost involved, there is, of course, no question of the advisability of such work. The problem is largely that of determining the advantages to be derived from the service. But before summarizing the advantages of credit records there is one point in connection with costs which should be emphasized. Country banking is a more or less seasonal business. There are slack periods. Credit research and analysis can be done to advantage during such periods by employees whose time is not fully utilized with the regular routine of the bank. The country banker usually employs less help during the slack seasons in order to reduce his overhead costs, but efficiency requires that continuous employment be provided for all employees except those who do the simplest tasks about the bank. The trained tellers and accountants must be kept through the year. A part of this force could well be employed in credit research during certain seasons of the year. Then, instead of being wholly an addition to overhead costs, the work of collecting and analyzing credit information should help to reduce the existing overhead costs of the bank. Men who are otherwise indifferently employed are supplied with useful employment.

Advantages of Credit Records. The advantages which can be derived from a system of credit records may be summarized as follows: (1) a reduction of losses on loans made by the bank; (2) an increase in safety to depositors through a more scientific appraisal of credit risks of borrowers; (3) an improvement of the business practices of borrowers; (4) available credit information for creditors not located in the immediate community, such as fertilizer, feed, implement, and lumber dealers; and (5) more efficiency in directing capital to the more capable producers of the community.

Questions and Problems

1. Explain the increasing use of single-name paper as a basis for operating loans.

2. Should operating loans be made when it is necessary for the banker to take a mortgage on the teams and machinery of the borrower? Does the prevalence of the practice of making loans on such chattel mortgages indicate a defective banking system?

3. Explain the need for greater discrimination among the credit risks of the community under the following heads: (*a*) effect on interest rates; (*b*) effect on farming methods; (*c*) effect on the bargaining power of farmers in the sale of their products.

4. The country banker must be a student of prices of the products of his community as well as an analyst of specific credit risks, if he is to avoid the accumulation of "frozen" or worthless assets in the form of farmers' notes. Suggest ways and means of interpreting price movements.

5. How would individual credit records aid in the standardization of short-term agricultural paper?

6. Is it advisable for the banker to extend a loan which will make the borrower's total obligations for the year more than one-half of the estimated income for the year?

7. Assume that you are a banker and on Jan. 1, 1930, a farmer customer wants to know the maximum loan he can obtain for the year; you look up his record and find the data given in the hypothetical illustration in this chapter. (*a*) What would be your maximum loan under these circumstances? Explain how you arrived at your estimate. (*b*) What would be your maximum loan for the year 1928?

8. Compare the record sheet suggested in this chapter with the two types of financial statements presented in Appendix B, (1) as to adequacy and (2) as to practicability.

References for Further Reading

LARMER, F. M., "Financing the Livestock Industry," Chaps. 3 and 4.

MILLER, M. D., "Bank Loans on Statement and Character," Chaps. 1 to 4, and 13.

MUNN, GLENN G., "Bank Credit, Principles and Operating Procedure," Chaps. 4 to 6, 10, 12, 13, and 20.

PHILLIPS, C. A., "Bank Credit," Chap. 7.

PRUDDEN, R. F., "The Bank Credit Investigator," Chaps. 1 to 4.

WESTERFIELD, RAY B., "Banking Principles and Practice," Vol. IV, Chap. 47.

CHAPTER IX

THE APPRAISAL OF SECURITY FOR LONG-TERM LOANS

The factors that determine the credit risk in long-term loans are similar to those which determine short-term credit risks, *i.e.*, the personal integrity of the borrower, his prospects for income, and his net worth. The longer term of the loan, however, calls for different emphasis on these factors and different methods of analysis. The personal element is of less relative importance in the long-term loan, while property values are of greater relative importance. The prospect for net income is the heart of the credit analysis in long-term credit, as well as short-term credit, but there are many new factors to be analyzed in the estimate of net income over a long period of years.

No attempt is made here to minimize the importance of personal integrity in farm-mortgage loans. It is obviously an important factor. The reputation of the borrower for personal integrity usually determines whether or not a loan shall be extended. When the banker learns that the prospective borrower has a good reputation, he is ready to begin the more difficult problems of appraisal. He must investigate and analyze the factors that determine the amount which can be lent with safety, *viz:* (1) the ability of the borrower to make annual payments on the loan and (2) the emergency sale value of the property to be mortgaged. Estimates of annual paying ability and the emergency-sale value of the farm involve two distinct lines of investigation and analysis. The price at which the mortgaged farm will sell under foreclosure does not indicate the ability of the borrower to make annual payments of interest and principal; neither does the annual paying ability of the borrower indicate the emergency-sale value of the farm. But why is it necessary to consider the possible sale value of the farm, if the ability of the borrower to make his regular annual payments can be determined? Indeed the investigations of sale value would be unnecessary if the lender could determine accurately the annual paying ability of the borrower throughout the term of the loan. This is obviously impossible. The emergency-sale value of the mortgaged farm is simply a protection to the lender in case he has overestimated the borrower's ability to pay the loan from his regular earnings, or in case of death of the borrower. The final decision of the banker as to the size of the loan to be granted can be made by checking the results of the two lines of investigation.

THE ABILITY TO MAKE ANNUAL PAYMENTS

The analysis of the borrower's ability to make annual payments should center around the relation of gross income to the various annual financial obligations of the borrower. The data should cover the operations of one or more previous years. The exact amount of the loan to be recommended may be arrived at by some such process as the following:

First, determine the gross income received by the borrower during the past year, or better, the average gross income for several years.

Second, determine for the past year, or several years, how much was left over after the obligations (leaving out of consideration for the moment the repairs and replacements of capital) involved in the year's production and the family running expenses were paid. The amount left over will probably be found in one or more of the following forms: (1) bank deposits, (2) loans, (3) additions to capital. For instance, suppose the net earnings are represented wholly by bank deposits and it is found that on Jan. 1, 1925, the farmer has a clean slate for his 1924 obligations and has $500 in the bank. The appraiser finds on Jan. 1, 1926, that the 1925 obligations have been met, and that the borrower has $2,000 in the bank. This means that aside from the depreciation of capital he has had net earnings of $1,500 during 1925. Then if 1925 is taken as a representative year, it seems that the banker could very safely make a loan sufficiently large that the annual interest and principal payment would amount to $750. But there are two other points to consider: (1) Is it probable that the borrower can earn an average of $1,500 per year during the period of the loan? (2) What is the amount of the annual average expense for upkeep and replacement of land, buildings, machinery, and livestock?

Third, estimate future net earnings with past earnings as a starting point. The two main factors to consider here are (1) probable general increase or decrease in the farmer's costs of production, and (2) probable increase or decrease in the prices of farm products. These are factors of general agricultural conditions which the farm-mortgage banker or other lending agencies must interpret for themselves. The wise farm-mortgage loan agency could see the likelihood of an impending slump in agricultural prosperity in the year 1919. Likewise, the likelihood of improved conditions could be foreseen in the year 1921. It is, however, more difficult to foresee the agricultural conditions for a 20- or 30-year period. Nevertheless, the farm-mortgage banker who makes a 20-year loan in 1927 must necessarily interpret agricultural conditions from 1927 to 1947. The question of the future trend of prices and the costs of producing agricultural products must be considered from the long-time point of view. Another question arises in connection with a particular loan. In case costs should increase out of proportion to price increases in the particular line of production in which the borrower is engaged, can he easily shift to the production of other commodities?

For purposes of illustration, suppose that farmers are not likely to be as prosperous on the average during the next 20 years as they are at present, and that after considering the individual case of the applicant, the appraiser decides that net earnings of $1,200 instead of $1,500 would be a more accurate estimate. Then, in order to allow for a bad year or a series of bad years, he would probably not desire to make a loan the annual payments on which would amount to more than half of $1,200.

Fourth, deduct the amount which should be allowed annually for the upkeep of land and equipment. There will be some years in which very little repairs or replacements are necessary, but there will be other years in which very large amounts must be spent as, for instance, when buildings, expensive machines, and teams must be replaced. The appraiser must estimate the average annual upkeep expenditure which is likely to be necessary over the full term of the loan. The average annual expense for replacements can be estimated fairly accurately by dividing the average period of usefulness of the various kinds of farm equipment into the purchase price in each case.[1] For instance, if 25 years, $325 per year will be necessary for their replacement.[2] buildings with a replacement value of $8,000 are expected to last The annual cost of repairs or upkeep must also be added to this figure. Suppose that a total deduction of $500 per year must be made for repairs and replacement, there remains then $700 as the estimated future annual net earnings which are available to pay the annual interest and principal bills on the mortgage.

Fifth, determine a desirable ratio of net earnings to annual interest and principal payments. Safety requires that prospective earnings be considerably greater than the debt obligation. No conservative investment banker, for instance, would underwrite an industrial bond for a corporation which shows earnings of just enough to pay interest on bonds. He would find their sale impossible, because investors insist on a margin of safety—a margin to guarantee the regular payment of interest. Similarly, the farm-mortgage banker must insist on a margin of safety. The industrial corporation whose bonds are considered a safe investment will usually be able to show net earnings equal to at least twice the amount of the annual interest payment required on an bonds in question. In fact it is very common to see this ratio advertised to investors as being 3 to 1, although in many cases deductions must be made for a sinking fund from which to pay the principal of the bonds when they mature. It has been assumed above that the farm-mortgage borrower makes payments on principal each year. Where this is the case it seems that a 2 to 1 ratio is satisfactory for the investor or the farm-mortgage banker. If this ratio is satisfactory to the farm-mortgage banker, a loan could be made in the above illustration the annual interest and principal payment on which amounts to $350.

Sixth, calculate the amount of a loan which calls for the annual payment of $350. The amount will depend on the interest rate, the length of term of the loan, and the method of repayment. Assume, for instance, that the loan is to be repaid on an amortization plan which requires equal annual payments.

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[1] See Chap. IV for a discussion of the life period of the various types of farm investment capital.

[2] This leaves out of consideration the possible earnings of the replacement fund.

If the rate of interest is $5\frac{1}{2}$ per cent and the last of the series of annual payments is to be made 30 years from date, a loan of approximately $4,000 can be made on the basis of annual payments of $350. If the interest rate is higher, or the term is shorter, the amount of the loan must be reduced accordingly.

General Bases of Ability to Make Payments.—Because of the uncertainties of future gross income and annual obligations of the borrower, certain adjustments of the final amount determined by the study of past performances might be desirable. Thus, the appraiser should consider the farming and business practices of the borrower and the adequacy of the land, equipment, and labor which he operates. He might discover, for instance, that the soil is rapidly depreciating in fertility, or that the borrower is likely to lose most of his labor force within a few years. Such conditions would of course call for a reduction in the amount of a long-term loan.

Land, Equipment, and Labor.—The physical structure and chemical content of the soil are very significant factors to consider in estimating the productivity of the farm over a period of 20 to 40 years. How long has the land been cultivated, and how long can it be cultivated without the necessity of applying artificial fertilizer? In many of the older agricultural sections of the United States farmers are finding it necessary to spend considerable sums for fertilizer.[1] For this reason the farm-mortgage banker finds it necessary to consider the probability of decreased production, or else the annual expense of fertilizer.

Whether soil, buildings, and equipment will be preserved in good condition over a long period of years depends to a considerable extent upon the borrower. Does he know how to maintain the fertility of the soil, and does he realize the importance of maintaining it? Is his care of equipment such that it will last for a normal period?

The labor situation of the borrower is ordinarily a question of the future size and working capacity of his family. The farmer with three or four industrious sons growing up has a distinct advantage over the farmer whose sons have all married, or who, if they are still with him, have not developed habits of industry. Since the mortgage banker lends for a long period of years, the age of the farmer himself and the future growth of the working force of the family are important considerations.

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[1] Fertilizers were applied on 94 to 98 per cent of the cotton acreage of North Carolina, South Carolina, and Georgia in 1925 at an average cost per acre of $7, $5, and $4, respectively; while in Texas and Alabama fertilizers were applied to only 6 per cent and 1 per cent of the cotton acreage at an average cost of $3.25 and $2.25 per acre. See U. S. Dept. Agr., *Yearbook*, 1925, p. 1423.

Business Methods.—The heart of the problem of the individual farmer can be reached only through a definite knowledge of his business, and this can be accurately achieved only by keeping a record of his transactions and operations. The purpose of keeping a record of the costs is to determine promptly whether the present method of procedure is yielding maximum net returns. The farmer can always tell in a vague way within a few years whether his business as a whole is progressing or not, but even then he has a very indefinite idea about what particular phase of his business is putting him ahead or behind. Is he getting ahead because he has reduced labor costs per unit of product, or because he has reduced capital costs, or because he is using commercial fertilizer, or because he is practicing diversification, or because he has happened to have good markets?

Good business methods require that the farmer diversify his production. There may be, of course, a few outstanding exceptions to this rule. There may be some small areas which are so eminently well adapted to one particular crop that it would be folly to use the land for any other purpose. The indications are, however, that such cases are very exceptional in the United States. In estimating the prospective borrower's ability to make regular interest and principal payments the appraiser of a farm-mortgage bank will be attracted by those farmers who use the good business sense not to depend on one source of income.

In addition to business methods applied to the internal affairs of farm operations, ingenuity and business judgment must be used in the marketing of farm products. Good business methods applied to the internal affairs of the farm have to do chiefly with the reduction of costs to a minimum, while the use of good business sense in marketing has to do with getting a maximum price for products and performing marketing services at a minimum cost. Probably the first consideration is that of the borrower's freedom in the sale of his products. Is his credit situation such that he must sell immediately to pay off pressing debts, or is he in a position to hold the product for a better market? Second, what is his warehousing system? Many cotton farmers, for instance, suffer considerable reductions in price due to poor warehousing, or to no warehousing at all. Third, does the borrower know the advantages of cooperative selling? Of course, the appraiser must decide for himself whether or not there are such advantages.

Influence of Community Standards.—The amount of a loan based on the estimated current ability of the individual to pay will require some adjustment when the efficiency of the borrower is considerably above or below that of the average producer of the community. The necessity for this adjustment arises because of the likelihood that the mortgagor will transfer the indebtedness to some other individual before it is fully paid.[1] The probability of such transfer is particularly great in the case of loans for long terms of 20, 30, or 40 years. Even if the borrower does not transfer the obligation to others through sale or inheritance, the active operation of the farm is likely to be left to other members of the family, or to a tenant outside the family.

EMERGENCY SALE AND RENTAL VALUE

But suppose an emergency arises making it impossible for the borrower or his successor to make the required payments. Long-continued illness of some of the members of his family may place such a burden on him that he will be compelled to surrender his land to the bank. Other contingencies, such as fire, tornadoes, floods, successive years of poor crops, or a prolonged period of low prices may make payment of the loan impossible. In case such unexpected and unpredictable events prevent liquidation of the debt in the regular manner, the lender may force an immediate settlement by taking over the farm through the legal process of foreclosure. Ordinarily the lender sells the farm and retains enough to pay the debt plus the costs of sale, the remainder of the sale price going to the borrower. The other alternative is for the banker to hold the farm for rental or future sale.

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[1] The holder of the mortgage, however, may hold the original mortgagor responsible for his personal note in case the mortgagor's equity is sold, if he so desires. Since most mortgages are accompanied by a personal note of the mortgagor, the creditor usually has protection against transfer to irresponsible buyers in so far as the original mortgagor's personal note has value; but this claim on the original borrower does not prevent misuse and deterioration of the property by the new purchaser. See William Lilly, "Individual and Corporation Mortgages," pp. 53–59.

Present Sale Value.—The lender must be assured that in case foreclosure should become necessary he can either obtain a price sufficient to pay the loan, or collect enough rent from the farm to pay the annual obligations of the loan plus the expense of collection. Present sale value is the practical starting point in estimating the probable emergency sale value. The present sale value may easily be ascertained in case the loan is obtained to purchase the farm to be mortgaged, but frequently a farm owner mortgages his property for the purpose of refunding an old debt, making improvements, or buying land not mortgaged. In such cases, the selling price of other farms in the community which have recently changed hands supplies a good basis for estimating the sale value of the farm in question.

Future Sale Value.—Of greater importance to the lender, however, is the future selling price of the farm. He is interested in the price that can be obtained when foreclosure becomes necessary. But since the exact future price cannot be determined, the banker must make an estimate on the basis of the factors which may affect farm values during the period of the loan.

Depreciation.—Probably the most obvious factor which affects the future value of the particular farm under consideration is the depreciation of land and buildings. During the term cf a 20-year loan the soil may be robbed of a large percentage of its fertility and the buildings may become practically worthless. The rate of depreciation of the land must be estimated largely on the basis of cropping methods used, while the rate of depreciation of the buildings depends on the repair and replacement policy of the borrower. In addition to depreciation from use, buildings are subject to complete loss by fire and tornado. Loss by fire is so common that most mortgage bankers and insurance companies require that buildings be insured. Because of fire and tornado hazards and the rapid normal rate of depreciation of buildings, many lending agencies refuse to lend on the value of buildings.

Thus, from depreciation alone land and buildings may lose a considerable percentage of their value during a period of 20 or 30 years. It is likely that soil depreciation will come to have greater weight with bankers than it has had in the past, since its full significance is just coming to be realized in this country. Bankers may be expected in the future to include in the mortgage certain definite requirements of operation which will protect them against soil depletion.

Analysis of Present Sale Value.—In estimating the probable trend in farm-property prices, the present price must be analyzed. Is the present price inflated? That is, in the judgment of the lender, have buyers so overestimated future prices that present prices will actually decrease? The prevailing farm-land prices in this country, in 1919 and 1920, furnish an excellent illustration of inflated prices. The 1925 Census indicates a decrease of about 25 per cent in the total value of farm property in the country since 1920. If this is true for the country as a whole, it is apparent that many farms sustained a greater decrease in value. During this period, many lenders have foreclosed on farms which could not be sold for a price sufficient to cover the loan. An analysis of the business cycle should help the farm-mortgage banker in estimating future land values. The year 1920 marked the crest of high prices in general. Many bankers were able to foresee a drop in the price of agricultural products and with it a period of depression and decreasing land values, while others were carried along with the wave of enthusiasm which stimulated buyers to pay unreasonable prices for land. If the cycles of prices in general are studied, it will be found that the prices of farm products are usually subject to greater and more sudden decrease in periods of depression than are those of most other commodities. Also, an extensive fall in the price of farm products is usually accompanied by a fall in farm land values, although land prices do not decrease in proportion to commodity prices.

It is conceivable on the other hand that land prices may become unreasonably low during a period of depression such as that which followed 1920. Probably, the 1925 prices for farms are too low and a rise can be expected within the next decade. This brings up the question of what are too low and too high prices for farm land. On what basis does the banker determine whether land prices are too high or too low? Aside from the home attractions and the social advantages of a particular farm, the selling price of the farm is determined by buyers' and sellers' estimates of its present and future earnings. If the prospective future earnings or the prospective future selling price of the land is overestimated, the present selling price is too high. The lender must simply balance his judgment of future sale value against that of the present buyers of land.

Other Future Price Factors.—In addition to the knowledge of the general trend of business or prices, the banker's estimate of the future price of land will be influenced by such factors as future tariff policies of the government, the probability of increased taxes, and the demand and supply conditions for the products of the particular land under consideration. A well-established protective tariff policy for agricultural products which compete on the home market with foreign products would tend to increase farm-land prices, while a reduction or abolition of the tariff would have the opposite effect. An increase in the taxes on farms and farm products out of proportion to the direct economic benefits received tends to reduce the price of farm land, and vice versa.

The farm-mortgage banker finds it to his interest to study the demand and supply conditions affecting the products of the farming section in which he is operating. Suppose, for instance, he is making loans in a cotton-producing region. His estimate of land prices over the next 20 years will be affected by a possible increase in the demand for cotton due to an increasing population, or a possible decrease in demand due to the substitution of wool, mohair, and silk. On the other hand, his estimate of land prices will be influenced by the prospects for boll-weevil control, and by the prospects for increased production of cotton in Brazil, Egypt, India, and other cotton-producing areas of the world. Moreover, the possibilities of producing other types of products on the cotton land, in case demand and supply conditions arise which would make cotton production unprofitable, must be considered.

Banker's Valuation Is Conservative.—The banker is likely to make a more conservative estimate of the future price of land than will the land buyer. In the first place, the banker is not expecting a speculative gain through increased land values, whereas, the buyer may expect a rise in price and may be willing to advance a part of the expected gain in the form of a higher present price. In the second place, buyers are frequently induced to pay high prices by the salesmanship methods of professional land dealers. No such influence is present in the banker's valuation. In the third place, the buyer may hope to sell at a time when land prices are highest, while the banker has little choice as to the time he will sell since he cannot anticipate the time that foreclosure will be necessary. As a matter of fact, the farm-mortgage banker usually experiences the greatest necessity for foreclosure during a period of low prices.

Ordinary Sale versus Forced Sale.—The question of the difference in the price of land sold under ordinary sale conditions and that under forced sale suggests itself at this point. The banker not only makes a more conservative estimate of the future price of land under ordinary conditions of sale than does the land buyer, but he also deducts some for the disadvantage of a forced sale. Buyers at public auction or at a forced sale of mortgaged property expect a bargain. It is generally understood that the farm must be sold. This can result only in a lower price than would prevail under normal competitive sale conditions. The conditions of ordinary sale and forced sale differ further in that the farm on which foreclosure proceedings are instituted is commonly in a run-down condition due to indifference of the mortgagor or to lack of funds.

Annual Rent.—The lender is concerned with the rental value of the farm, since he may prefer to acquire full title to the land and rent it out instead of selling at a loss. The gross amount of rent which the land pays can be ascertained with little difficulty in those sections in which cash rent is paid. In case of share rent, the gross rent can be estimated by the average production of the farm. A more difficult problem is that of determining net rent. Taxes, expenses for upkeep, insurance, and the cost of looking after the farm must be deducted from gross rent in order to determine the net return from the farm.

It is particularly difficult for a mortgage bank or insurance company to look after a rented farm, since the business is located a considerable distance from the farm. Even though a local agent of the bank or company has charge of the farm the result is usually unsatisfactory. He looks on the task as a side line to his main business and commonly neglects it. Unless an exceptionally good tenant is found for the farm, the buildings and improvements are likely to be neglected. Also, not many tenants take particular interest in maintaining the fertility of the soil, since their interest in the farm is only temporary. On the whole, the renting problem is so great that the banker usually prefers to sell the farm, even if it must go at a loss.

Ratio of Loan to Forced Sale Value.—After the lender makes his estimate of the probable forced sale value of the farm, he still has the problem of determining what percentage of this value he is willing to lend. The most scientific estimate of future land values may be inaccurate. The investor in farm mortgages desires some margin of safety regardless of his confidence in the ability of the banker to predict land values. Just how much margin does conservative investing and banking policy require? Can a loan amounting to 75 per cent of the estimated sale value under foreclosure be made with safety? Would 85 per cent be too high? Or, can more than 50 per cent be lent with safety? A definite answer to these questions is impossible, if applied to all loans. Some lands have a more stable value than others. Some farmers are known to be excellent caretakers of soils and buildings, while others are not. The percentage to be lent on a particular farm will be affected (1) by the degree of accuracy with which the banker feels that he can estimate the future value of the farm, (2) by the method for repayment of the loan, and (3) by the policy of the lender.

Assumed Accuracy of the Sale-value Estimate.—In a newly developed section of the country where future land values are more uncertain than they are in the older sections of the country, the lender will find it necessary to make more conservative loans. In the latter case land values are more stable—farming methods and farm earnings are more thoroughly established. There is a greater background of experience on which to base land values.

Again, there is a variation of certainty of future land values according to the type of commodities produced. The future market for some products is more certain than for others. Thus, farm products may be classified roughly as staple products and specialty products. Cotton, wheat, hogs, corn, beef cattle, and other such basic commodities should be classed as staples, while many vegetables, fruits, and nuts are, more or less, specialties. Obviously, no hard and fast lines can be drawn in this classification, since wide fluctuations in price are often experienced with the "staple" commodities and frequently "specialty" prices are fairly regular. But it can easily be seen that the banker can estimate the future value of cotton or corn land, for instance, with greater certainty than that of land particularly adapted to onion or grapefruit production.

The accuracy of the estimate of the future value of a farm is also affected by the farmer himself. The rate of depreciation of soil and improvements is greatly affected by the man in charge. If the borrower has been farming long enough to demonstrate his methods of soil maintenance and general care of property, the banker has some definite basis on which to estimate depreciation. On the other hand, many borrowers are young and inexperienced. Their reputation as husbandmen has not as yet been established, and their efficiency as caretakers is uncertain.

Methods of Repaying the Loan.—Under ordinary circumstances a large percentage of the estimated emergency-sale value of the farm can be lent if the annual payment method is used in paying the principal of the loan. With this method the investor or banker has a greater margin of security with the passing of each year. The same amount of property is mortgaged, yet the amount of the debt is annually decreased. Other things remaining the same, the loan becomes safer as time passes; whereas, in the case of a loan the principal of which is to be paid at the end of the term, there is no such increasing margin of safety.

The Investment Policy of the Lender.—The percentage lent on the estimated future sale value of the farm land will also depend on the policy of the mortgage banker and the investors to whom he sells the mortgage. Some bankers and investors are willing to forego some of the safety elements in order to obtain higher interest rates. Borrowers who have very little funds with which to buy a farm or who are heavily indebted are frequently willing to pay an attractive interest rate to get a maximum loan.

FINAL APPRAISAL

Final decision of the amount of the loan to be extended should be fixed by checking the amount determined on the basis of ability to pay the annual obligations of the loan against the amount determined on the basis of emergency-sale value. Suppose, for instance, that the amount set on the basis of annual paying ability is $10,000 and that on the basis of emergency-sale value is $12,000. Unquestionably, the loan should be limited to the former amount, since the banker wishes by all means to avoid foreclosure proceedings. Suppose, on the other hand, that these estimates are reversed and it appears that on the basis of annual paying ability the borrower can safely be depended on to pay a $12,000 loan, while the amount as set on the basis of emergency-sale value is only $10,000. In this particular case, the wise banker will probably set his figure at $12,000 if that much is desired by the borrower. This simply means that he will lend 60 per cent of the estimated emergency-sale value instead of his usual maximum of 50 per cent, or 72 per cent instead of 60 per cent, as the the case may be. In this example, it seems that the annual-paying-ability basis governs in any case and that emergency-sale value is useless as a basis for determining the amount of the loan to be extended. But that such is not the case can be shown by another illustration. Suppose that instead of $10,000 and $12,000 in the first case above, the estimates are $10,000 and $20,000. Unquestionably, again, the conservative banker will limit the loan to $10,000 in order to avoid the necessity of foreclosure. Now suppose these estimates are reversed and annual paying ability calls for a loan of $20,000 while emergency-sale value calls for a loan of $10,000. In this case the banker will probably place the amount of the loan at $12,000 to $15,000. If he lends the full $20,000 he will probably have extended more than his estimate of the total emergency-sale value of the farm, which is seldom if ever advisable.

To sum up: (1) take the estimated emergency-sale value of the farm, or say 80 or 90 per cent thereof, as the upper limit, and (2) fix the loan at the amount determined on the basis of the annual paying ability, provided it does not exceed the upper limit set in (1) above. The safety of the investor requires that the loan should not exceed emergency-sale value, and the desire of the banker to avoid foreclosure induces him to emphasize annual paying ability in fixing the exact amount of the loan below this maximum. On the whole, farm values are more constant over a period of years than is the annual paying ability of individual borrowers and, hence, estimated emergency-sale price should determine the maximum limit of loans. Yet, if this value alone is used the banker is courting foreclosure troubles. His accurate estimate of the annual paying ability of the borrower and his conservative loan policy on the basis of this estimate makes his business a smooth running financial business rather than a business of troublesome litigations and forced land sales.

COMMON METHODS OF APPRAISAL

The traditional system of appraisal used by farm-mortgage loan agencies in this country is based largely on the reputation of the borrower and the sale value of the property to be mortgaged. On learning that the prospective borrower has a reputation in his community for honesty and square dealing, the appraiser begins the process of setting a value on the farm. Because of their relatively rapid depreciation, buildings are usually appraised separately from the land. It is customary to use replacement value in their present condition in appraising buildings. The practice among mortgage bankers and insurance companies varies considerably with regard to the part that building values play in determining the amount to be lent on the farm. Some agencies will lend nothing on building values, while others are purported to vary the percentage advanced on land somewhat according to the value of the buildings on the farm. The federal and joint stock land banks lend 20 per cent of the value of the buildings, and some agencies simply sum up the value of buildings and the value of the land and lend a certain percentage of the total amount.

The amount to be advanced on the land is commonly determined by the sale value of the farm, less the estimated value of the buildings. In case the land is not being sold at the time the loan is made, the appraiser usually accepts the price at which it sold the last time it changed hands, or sets the price on the basis of the present selling price of land in the surrounding community. The maximum loan on land commonly ranges from 50 to 60 per cent of the sale value, according to the policy of the banker. The amount allowed on buildings is added to the amount on the land to determine the maximum loan on the whole farm.

But during the past few decades farm-mortgage loan agencies have come to question the propriety of accepting sale price in determining the amount of loans. Bitter experience has taught farm-mortgage bankers and insurance companies that the sale price of a farm is not an accurate indicator of the borrower's ability to pay the loan. The inadequacy of sale price as a basis for determining the amount to lend was first clearly revealed in the 'eighties during the so-called "farm-mortgage craze."[1] During this period the budding farm-mortgage business of this country suffered a collapse which was fatal to a large percentage of the farm-mortgage bankers. Their failure was due to a too liberal loan policy, which in turn was based on the overvaluation of land. The sale price of farms in the Middle West, the Southwest, and the Prairie states had advanced far out of proportion to their earning capacity. A lull in the "land boom" in the latter 'eighties resulted in falling prices and slow sales.

[1] HERRICK, M. T., and R. INGALLS, "How to Finance the Farmer—Private Enterprise—Not State Aid," Chap. 2.

The relatively few farm-mortgage bankers who found themselves in a solvent condition after the experiences of this period determined to establish their business on a more scientific basis. Their chief problem was to discover better methods of appraisal. Earnings of the farm began to be talked about as a basis for appraising land values. The Federal Farm Loan Act of 1916 provides that in the valuation of lands "the earning power of said land shall be a principal factor."[1] The following ruling has been made on this point by the Federal Farm Loan Board:

> The appraisement of a farm should represent the best judgment of the members of the Loan Committee as to the value of the land in question, the principal factor being the productivity of the land then used for agricultural purposes, but taking also into consideration the salability of the land and the prevailing prices of the community.[2]

The enormous increases in farm-land prices during and immediately following the recent war, with the sudden fall in prices which occurred from 1920 to 1925 resulted in extensive losses to many farm-mortgage loan agencies. The experiences of this period again forcefully emphasized the necessity of more scientific appraisals. Again the farm-mortgage lender was impressed with the inadequacy of sale value as the sole basis for appraisal and with the advisability of emphasizing earnings in farm-land evaluation.

Yet no farm-land appraiser or farm-mortgage agency has discovered a scientific method of determining land values on the basis of the earning power of the land. In order to determine the value of farm land on the basis of its earning power, the net earnings of the farm must be ascertained and capitalized on the basis of an arbitrary rate of interest. Of these two processes, the first is impossible and the second is impracticable. The net earnings of the land cannot be isolated from the earnings of the farmer and his equipment. Suppose that after the actual expenses of the year for extra labor, materials, taxes, fertilizer, repairs, etc. are paid the farmer has $2,000 left from the gross receipts of the year. In order to determine what portion of the $2,000 is earnings of the land, the appraiser must determine how much should go to the farmer as wages and profits and how much should go as earnings on the investment in livestock, machinery, and other equipment. Since these latter determinations must inevitably be arbitrary, there remains no way of setting the amount of the total $2,000 which should be assigned as net earnings of the land. The $2,000 simply comprises the composite earnings of the whole farm unit, including the farmer's labor supply, his managing ability, and his equipment, as well as the land.

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[1] Federal Farm Loan Act, Sec. 12.

[2] Federal Farm Loan Bureau Compilation, *Minutes*, p. 20*B*.

Furthermore, if the net earnings of the land could be determined, the value set by capitalizing earnings would be based on an arbitrary rate of interest. Shall it be capitalized at 4, 5, 6, or 7 per cent? Presumably, the rate should be governed by the rate that could be obtained from investments in other forms or in other lines of industry. But these rates vary so widely that it is impracticable to attempt to set a definite rate. Suppose on the basis of 4 per cent the earnings are such that the land will be valued at $100 per acre. Then, at 5 per cent, the value would be $80. Here a change of only 1 per cent in the rate of interest makes a difference of $20 per acre in the price of land. The inevitable conclusion is that even if the net earnings of the land could be ascertained no satisfactory rate on which to capitalize could be discovered.

In the appraisal of security for long-term farm loans the lender is vitally interested in earnings—the earnings from which the interest and principal of the loan are to be paid. These earnings will in reality be a result of the ability of the farmer with his land, equipment, and labor to produce marketable commodities at a low cost. They will be the earnings of the whole business unit.

Likewise, the lender is interested in the value of the farm which is mortgaged—the emergency-sale value, not the regular sale value nor the value calculated on the basis of the supposed net earnings of the land. The only possible interest the lender can have in the value of the farm is that he may be forced to sell it in order to recover the loan. This means emergency-sale value.

Questions and Problems

1. Point out the chief distinctions between the credit analysis for short-term and for long-term loans.

2. In the credit analysis for long-term loans, which do you consider more fundamental: (1) analysis of ability of the borrower to make annual payments? or (2) analysis of the value of the mortgaged property?

3. Is there any relation between the ordinary sale value of the mortgaged property and the ability of the borrower to repay the loan? Is the value of the property an accurate indicator of the borrower's ability to make annual payments, and vice versa? Discuss.

4. What are the chief difficulties involved in making long-term loans on the basis of value as determined by capitalizing rent?

5. Explain why it is necessary to analyze both the borrower's paying ability and the emergency-sale value of the mortgaged property?

6. Explain the process of making a scientific analysis of the credit risk for a long-term loan, indicating the influence of the following factors: (1) business methods of the borrower, (2) stage of economic development of the community in which the borrower lives, (3) diversification of production, (4) the length of term of the loan, (5) the general rates of interest prevailing in the country, (6) the methods by which the loan is to be repaid, and (7) the stage of the business cycle.

References for Further Reading

ELY, RICHARD T., "Costs and Income in Land Utilization," Chap. 7.

FOX, JOHN J., "Manual of Rural Appraisement," Chaps. 1, 2, and 8.

ROBINS, K. N., "The Farm-mortgage Handbook," Chaps. 3 and 8.

U. S. Dept. Agr., *Dept. Bull.* 1224, "Relation of Land Income to Land Values"; and *Bull.* 874.

WALLACE, H. A., GRIFF JOHNSON, and A. G. and J. D. BLACK, "Symposium on Iowa Land Value Appraisals," *The Journal of Land and Public Utility Economics*, Vol. II, pp. 385–407.

WIPRUD, A. C., "The Federal Farm Loan System in Operation," Chap. 5.

CHAPTER X

FORMS AND LEGAL ASPECTS OF FARM SECURITY

A credit transaction involves an agreement which is enforceable by law. The state is a third party to the agreement, and in case of failure of the borrower or lender to live up to the contract the injured party may appeal to the courts for a remedy. Most credit contracts are written, although verbal agreements may also be binding. They take the form of promissory notes, mortgages, pledges, liens, open accounts, and verbal agreements. From the legal point of view, credit contracts may be divided into two main types: those which involve no specific security and those in which certain property is designated as a guarantee for the fulfillment of the contract.

CONTRACTS WITHOUT SPECIFIC SECURITY

Loans obtained on open accounts, personal notes, and verbal contracts are based on the general assets of the borrower. Such loans are commonly called "unsecured loans," since they are not secured by any specific items of the borrower's capital; but in reality they are secured by all of the borrower's capital which is not specifically pledged, mortgaged, or otherwise exempted at the time the loan is due.

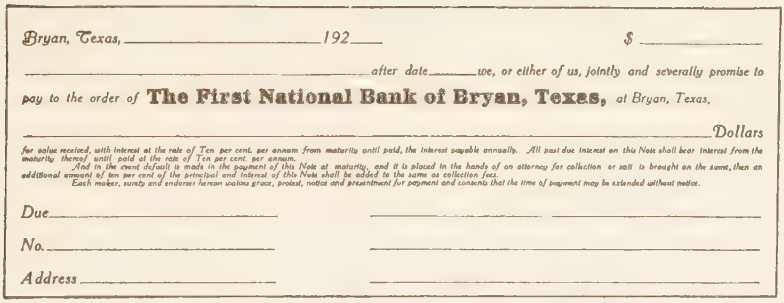
1. The Open Account

The open account, such as that with the merchant, is probably the most informal credit contract which is made by the farmer. Although the farmer secures supplies on account without making an agreement, either verbal or written, he has made a legal contract. In legal terms, he has made an implied contract, which is as enforceable as a contract expressed in writing.

From the point of view of the borrower, the open account has the disadvantage of being uncertain. Unless he keeps a record of his purchases he is uncertain as to the amount of the debt. Also, the open account gives opportunity for fraud. The merchant may "pad" the account without the knowledge of the customer. Even if the borrower suspects fraud on the part of the merchant, he is at great disadvantage to prove his point, since the latter usually has the only records of the transactions. The result is that in case the creditor brings suit for payment the court determines the amount of the debt by inspecting the merchant's books.

2. The Promissory Note

The promissory note is simply a written promise to pay a certain amount of money at a designated time, or on demand of the lender. Its chief elements are: the name of the lender, the signature of the borrower, the amount of the loan with or without the interest charge, the rate of interest, the date the loan is made, and the date it is to be paid, or the designation "on demand." Figure 1 shows a typical form of promissory note used by bankers.



Bryan, Texas, ____________ *192*___ *$* ________

________________ *after date* _____ *we, or either of us, jointly and severally promise to*

pay to the order of **The First National Bank of Bryan, Texas,** *at Bryan, Texas,*

________________________________ *Dollars*

for value received, with interest at the rate of Ten per cent. per annum from maturity until paid, the interest payable annually. All past due interest on this Note shall bear interest from the maturity thereof until paid at the rate of Ten per cent. per annum.

And in the event default is made in the payment of this Note at maturity, and it is placed in the hands of an attorney for collection or suit is brought on the same, then an additional amount of ten per cent of the principal and interest of this Note shall be added to the same as collection fees.

Each maker, surety and endorser hereon waives grace, protest, notice and presentment for payment and consents that the time of payment may be extended without notice.

Due ____________

No. ____________

Address ____________

Fig. 1.—Typical form of promissory note used by bankers. This is known as the "discount" form, since interest is specified only "from maturity until paid." The plain note form specifies interest "from date until paid."

Liability of the Borrower.—The maker of a promissory note is liable to the full extent of his assets on which there is no prior claim or exemption. Prior claims include mortgages and taxes. Also, most states provide for certain personal and homestead exemptions. The assets which can be attached for payment of a promissory note consist of what is left over after all taxes, mortgages, liens, and pledges have been paid and all personal and homestead exemptions have been made. If the available assets are insufficient to pay all promissory notes and open accounts of the borrower, an equal percentage is paid on each note and account. To illustrate: suppose that after the borrower's mortgages and taxes are paid and exemptions are deducted he has remaining assets amounting to $1,000 and he has an open account with his merchant for $500 and a promissory note at the bank for $750. This means that 80 per cent of these obligations can be met—$400 on the open account and $600 on the note. The question arises here as to the possibility of collecting the remainder of the open account and note from assets which may in the future accrue to the borrower. Under such circumstances, the merchant and the banker may secure what in legal terms is called a "judgment," which attaches the future income of the borrower until the debts are satisfied.

Liability of Indorsers.—The indorsers of promissory notes become liable in a similar manner as does the maker. The assets of each indorser after his mortgages and exemption have been deducted become available for the payment of the note. The holder of the promissory note may sue the maker or any one of the indorsers for the full amount of the debt, or he may sue the borrower and all indorsers simultaneously. In case an indorser is forced to pay the note, he may in turn recover by collecting from the borrower or by obtaining a judgment against the borrower.

Legal Process of Collection.—Merchants and bankers ordinarily hire an attorney to collect debts which involve lawsuits. The larger banks and mercantile establishments employ a lawyer for this special purpose. It is his duty to take the case to court and secure immediate payment of the note with the costs of litigation, or to obtain a judgment against the borrower.

CONTRACTS WITH SPECIFIC SECURITY

The essential difference between credit contracts which do not involve specific security and those in which certain specific properties are pledged or mortgaged is that in the latter case a definite prior claim to certain assets is established. From the point of view of the law the borrower's property may become available for the payment of a promissory note, but this is possible only after prior claims have been satisfied. A loan secured by a first mortgage on the farm must be paid in full before the property can be used to pay any other obligations, except taxes and public assessments; whereas, in the case of a promissory note or an open account any number of other obligations may be established with prior claims to the property of the borrower. The holder of a promissory note must give way not only to prior claims of holders of mortgages, but he must share his claim on the available assets of the borrower with other holders of promissory notes and all general creditors. The mortgage or pledge establishes on specific property a prior claim which cannot be changed until the debt is paid, while the promissory note or open account establishes only a general claim on the assets of the borrower, and the status of this claim may be greatly affected by other obligations assumed by the borrower before the note or account matures.

The pledge and the mortgage are the two chief forms of specific security for loans. The term "lien" is often used, but it has come to have about the same meaning as "mortgage." "Vendor's lien," "mechanic's lien," "thresher's lien," and "crop lien" describe what are essentially mortgages.

1. The Pledge

The pledge has been defined briefly as "a deposit of personal property as security."[1] Although cattle, machinery, jewelry, etc. might be pledged as security for loans, incorporeal property, such as stocks, bonds, notes, mortgages, insurance policies, and warehouse receipts, is much more commonly used. These represent rather definite values and are acceptable as security for loans. Stocks and bonds which have a ready market are particularly attractive security, since they can be turned into cash on short notice in case the borrower fails to meet his obligation. Similarly, warehouse receipts on non-perishable farm products are excellent security.

Suppose the farmer has invested his surplus funds in United States government bonds and at some time during the year desires to pledge these as security for operating loans. Ordinarily, he will keep the bonds in a safety-deposit box of the bank. On extending the loan the banker will simply attach bonds approximately equal to the amount of the loan to the personal note of the borrower. Or suppose the farmer has products stored in a warehouse and is in need of funds to use until he is ready to sell the commodities. If the goods are insured against fire and are kept in a standard warehouse, a receipt from the warehouse is acceptable as security. The pledging of a warehouse receipt is the same as pledging the goods, since the receipt gives the banker the right to attach the goods upon default of the borrower.

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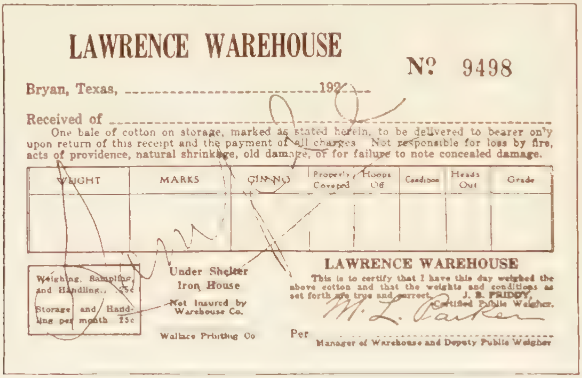
[1] "Modern American Law," Vol. IV, p. 116, 1924.

Loans secured by pledges such as those described above involve two distinct contracts: the note and the pledge. The note of course is a written contract, but the pledge agreement need not be written except in the case of corporate stock. The fact that the borrower delivers the bond or warehouse receipt into the hands of the banker implies a contract. The banker has recourse to two remedies in case of default of the borrower: (1) he may sell the pledged property, and (2) if the returns from the sale are insufficient, he may sue on the note for payment from the general assets of the borrower in the way that he would if no pledge had existed.

The pledge of stock, bonds, and warehouse receipts is not commonly used by farmers in obtaining loans, chiefly because such instruments are not widely held by farmers. Few corporate bonds and stocks are held, partly because the investment in the necessary farm capital is often great enough to absorb all surplus earnings, and partly because the farmer has traditionally preferred to invest his surplus funds in farm property or in farm mortgages. The individual farmer seldom has warehouse receipts to pledge, since he customarily either sells his products immediately after they are harvested or places them in the hands of a cooperative marketing association. The cooperative associations are, however, making rather extensive use of warehouse receipts as pledges for loans, which in turn are advanced to members.



LAWRENCE WAREHOUSE

Nº 9498

Bryan, Texas, ------------------------------ 192----

Received of --

One bale of cotton on storage, marked as stated herein, to be delivered to bearer only upon return of this receipt and the payment of all charges. Not responsible for loss by fire, acts of providence, natural shrinkage, old damage, or for failure to note concealed damage.

WEIGHT	MARKS	GIN NO	Properly Covered	Hoops Off	Condition	Heads Out	Grade

Weighing, Sampling, and Handling.. .25c
Storage and Handling per month 25c

Under Shelter
Iron House

Not Insured by
Warehouse Co.

Wallace Printing Co

LAWRENCE WAREHOUSE

This is to certify that I have this day weighed the above cotton and that the weights and conditions as set forth are true and correct.
J. B. PRIDGY,
Certified Public Weigher.

Per M. L. Parker
Manager of Warehouse and Deputy Public Weigher

FIG. 2.—Typical cotton warehouse receipt.

2. Mortgages

Practically all agricultural investment loans, as well as many operating loans, are secured by mortgages on farm property. It is probable that well over two-thirds of the total volume of credit extended to American farmers is secured by farm real-estate mortgages and chattel mortgages. The use of the mortgage is an important means of acquiring farm lands. After the farm laborer or tenant farmer has accumulated 40 or 50 per cent of the value of a farm, he is able to obtain ownership by borrowing the remainder on a mortgage. The chattel mortgage is used chiefly for loans to buy livestock, machinery, feed, or family supplies.

A mortgage has been defined as "a contract by which specific property is hypothecated for the performance of an act, without the necessity of possession."[1] In law it is distinguished from a pledge chiefly in that the latter involves actual possession of the property offered as security, whereas, mortgaged property usually remains in the hands of the borrower or mortgagor. Sutherland describes the relation between the mortgage and the pledge in the following statement:

> A transfer of interest in property, other than in trust, as security, is always a mortgage, except when in case of personal property it is accompanied by actual change of possession, in which case it is a pledge.[2]

The mortgage differs from the pledge further in the matter of transfer of title. In most of the states[3] the banker or other creditor who takes a mortgage acquires legal title to the property mortgaged. In the case of the chattel mortgage the title becomes absolute upon default of the borrower. In the case of the real-estate mortgage the title becomes absolute only upon default, foreclosure, and sale of the mortgaged property. On the other hand, the creditor never acquires title in any form to pledged property.[4] Of most significance here is the fact that in the case of both the mortgage and the pledge the property offered as security for the loan can be sold to satisfy the debt.

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[1] Sutherland, W. A., "Code Pleading Practice and Forms," Vol. IV, Chap. 137.

[2] *Ibid.*, p. 3223.

[3] In New York and Wisconsin and a few other states the courts interpret the mortgage as though it did not convey the title, but simply constituted a lien on the property. See R. T. Ely and E. W. Morehouse, "Elements of Land Economics," p. 215.

[4] Goddard, "Bailments," Sec. 72.

The Chattel Mortgage.—In most of the states a chattel mortgage is a conditional sale of personal property to secure a debt. The sale becomes void and the title is returned to the borrower if the conditions of the contract are satisfied. Jones describes the chattel mortgage as follows:

> A mortgage on personal property is a conditional sale . . . Such mortgage is something more than a security. It is a conditional sale of chattels [personal property], and operates to transfer the legal title to the mortgagee, to be defeated only by a full performance of the condition.[1]

A brief form of a chattel mortgage is given by Roberts as follows:[2]

> Know All Men By These Presents, that I, John Brown, of Ithaca, N. Y., hereby sell and assign to John Jones, of the same place, one democrat wagon, one lumber wagon, one set of single harness and one set of double harness, all of which are now in my barn at Ithaca, aforesaid. This grant is intended for security for payment of Thirty Dollars ($30), with interest, on or before the expiration of three months from date thereof, which payment, if duly made, will render this conveyance void.
>
> In Witness Whereof, I have hereunto set my hand and seal this........ day of.......................190....
>
> .... L. S.

The phrase "sell and assign" gives this document the appearance of a simple bill of sale. The chattel mortgage as defined in most states is indeed a bill of sale with the condition that the sale becomes void if the obligations set forth are duly performed.

Personal property commonly mortgaged by farmers includes livestock, farm machinery, automobiles, furniture, and musical instruments. In certain sections of the country, it is common for the merchant to take a chattel mortgage on the machinery and furniture sold on credit, while general family supplies are often bought on the security of any or all of the above forms of personal property. Automobile finance companies take a mortgage on cars sold. Bankers frequently take a mortgage on teams, dairy and beef cattle, and farm machinery. Loans obtained from cattle loan companies are almost invariably secured by a mortgage on cattle.

The Real-estate Mortgage.—In contrast to the chattel mortgage, the real-estate mortgage involves property in land primarily, although it commonly involves buildings and other permanent improvements as well. Legally, the most important difference between a real-estate mortgage and a chattel mortgage is that the former is regarded in most states[1] as mere security for a debt, while the latter is regarded as a conditional sale. That is, in most states, the chattel mortgage carries with it more extensive rights in the property mortgaged than does the real-estate mortgage. Under the old common law, the real-estate mortgage and the chattel mortgage were similar in that both were considered as a conditional sale, but through statutory enactments and the decisions of the courts of equity the former has come to be considered as a mere security in England and in many of our states.

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[1] Jones, L. A., "Law of Mortgages of Personal Property," 5th ed., pp. 1–2.

[2] Roberts, I. P., "The Farmer's Business Handbook," 2d ed., p. 226.

Jones describes the meaning of a chattel mortgage and its relation to the real-estate mortgage as follows:

> Such a chattel mortgage is something more than a mere security. It is a conditional sale of chattels, and operates to transfer the legal title to the mortgagee, to be defeated only by a full performance of the condition. Upon breach of the condition the mortgagee may take possession of the property, and, so far as the legal rights of the parties are concerned, he may thenceforth treat it as his own; he may sell it or give it away, squander it or destroy it.
>
> In this respect a mortgage of personal property is like a mortgage of real estate under the old common law, and differs widely from a mortgage of real estate, as the latter has gradually come to be viewed within the past half century in many of the states and territories of the United States; for while in these states such a mortgage is regarded as conferring no legal title upon the mortgagee, but as being a mere lien or security; in these same states, with some few exceptions, a mortgage of personal property is regarded as not being a mere security, but as passing the legal title which becomes absolute in the mortgagee upon default.[2]

The question then is: What is the difference in the meaning of the phrase "mere security" used in describing the real-estate mortgage and "conditional sale" used in describing the chattel mortgage? In actual practice, the difference seems to lie chiefly in the fact that in the case of a chattel mortgage the mortgagee can obtain possession of the property without the necessity of foreclosure and sale, while in the case of a real-estate mortgage according to the more modern view the mortgagee can become owner of the property only by buying it at a public sale conducted under the direction of the court.

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[1] That is, in those states in which the method known as "foreclosure by equitable action" prevails.

[2] Jones, L. A., "Law of Mortgages of Personal Property," 5th ed., pp. 1–2, 1908.

In keeping with the general principle that the mortgagor retains greater rights in the case of real-estate mortgages than in that of chattel mortgages, the period during which the mortgagor may redeem his property after default is usually longer with real-estate mortgages. Moreover, the mortgagor always has the right to recover the excess of the value of real estate to the debt, while in most jurisdictions in the case of a chattel mortgage the mortgagee may retain the excess provided he chooses not to sell the property.[1] Yet the mortgagee may always recover a deficiency in the value of the chattel mortgage by selling the property and suing on the note.[2]

Default of Mortgagor. *What Constitutes Default.*—Just what shall be considered a default depends on the provisions of the mortgage contract. Wiltsie says:

> . . . The right to foreclosure arises where the condition of the mortgage has been forfeited by failure to pay the principal or interest when due, or by some similar breach of contract.[3]

Agreements commonly found in contracts provide that the mortgagee shall have the right to foreclose the mortgage and sell the property of the borrower in case of his (1) failing to make payments of either the interest or principal when due, (2) failing to pay taxes and assessments on the property, (3) failing to keep premises in repair, (4) failing to maintain insurance on premises, and (5) abandoning the premises. In most states it is necessary that these conditions, with the exception of the payment of principal and taxes, be specifically agreed upon in the contract. Otherwise, failure to perform any of these conditions cannot be considered a default and, therefore, reason for foreclosure.

Remedies of Mortgagee or Creditor.—In case of default of the borrower, the lender may either bring suit on the note or foreclose the mortgage; or he may sue on the note and foreclose the mortgage concurrently. The procedure in bringing suit on the note is similar to that on any promissory note. Foreclosure proceedings may take any one of four forms: (1) foreclosure by entry and possession, (2) strict foreclosure, or foreclosure without sale, (3) statutory foreclosure, or foreclosure by advertisement, or (4) foreclosure by equitable action. According to Wiltsie the last named method of foreclosure " . . . is now the almost universal procedure among English-speaking races . . . " In behalf of this method this authority says:

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[1] *Ibid.*, pp. 978–979.

[2] *Landon* vs. *White*, 101 Ind. 249.

[3] WILTSIE, C. H., "Foreclosing Mortgages of Real Estate Property," p. 40.

> It is the most direct and certain practice, affords the largest opportunities for readjustment and enforcement of the rights of all parties interested, is the quickest in final results, produces the strongest and firmest titles, and does the greatest justice to both mortgagor and mortgagee.[1]

The first-named method—foreclosure by entry and possession—is confined chiefly to New England and a few of the Southern states. Briefly the procedure under this method is as follows: The mortgagee records a certificate or declaration of entry with the proper public official and publishes the declaration in the local newspapers. Then after one to three years (the time varying with the different states), if the borrower has not paid the debt, the lender's title to the property becomes absolute.

The second method—strict foreclosure, or foreclosure without sale—is the usual procedure in only two states, Connecticut and Vermont. This method was common in England at one time, its purpose being the immediate perfection of absolute title for the mortgagee instead of obtaining a decree for sale. It was long ago recognized in England as being unjust to the mortgagor and has become practically obsolete. In this country

> . . . the courts in most states recognize this method, but allow its use only in exceptional cases, owing to its severity upon the rights of the owner of the equity of redemption.[2]

A third method—statutory procedure—is sometimes applied. All the steps in this method of procedure are specifically prescribed by statute. The legislatures of practically all the states have passed laws providing for this method of foreclosure, but

> . . . owing to its extreme technicality and insufficiency of remedy, it is seldom practiced where an equitable action is allowed.[3]

The fourth method—foreclosure by equitable action—is by far the most common method in use, and will be described in more detail. Upon default of the mortgagor, the first step in the process of foreclosure is for the mortgagee to obtain from the court a decree of foreclosure, or order of sale. This decree usually contains a statement of the amount of the debt, directs that the mortgaged property be sold according to law, and that the proceeds of the sale be applied to the payment of the expenses of the sale, the costs of the action, and the debt.[1]

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[1] *Ibid*, pp. 8–9.

[2] *Ibid*, pp. 5–6.

[3] *Ibid*.

The second step in the process is to publish notice in the local newspapers, or by other means, several days in advance of the sale. Since the sale is to be made at public auction, the law requires that the public be given a reasonable opportunity to learn the time, place, and nature of the sale.

The third step is the appraisal of the property by the court. An "up-set" price is determined and the court refuses to sell at less than this price.

The fourth step is the sale itself. The court is the vendor and actually has the responsibility for the sale of the property, but it usually designates the county sheriff or some other representative to make the sale. The sale is made at the seat of justice—usually at the door of the county court house. Action must be brought and the sale made in the county in which the mortgaged property is located, regardless of the place at which the note is made payable.

In most states the mortgagor or mortgagee may become the purchaser at foreclosure sale, although some courts make certain reservations. Purchase by the mortgagee does not, however, affect the amount of the debt. If he pays less than the amount of the debt, the borrower still owes the remainder.

The question arises here as to the procedure in case the mortgaged property does not sell for enough to pay the debt. If the mortgage is not accompanied by a note, no other recourse is available, but this is seldom, if ever, the case. Any deficiency left after the mortgaged property is sold may be collected through a "deficiency judgment." The debt has an independent existence and remains with its original validity, notwithstanding a release of the mortgage.[2] The unsatisfied balance will be levied on other property of the mortgage debtor, or if the remaining property is already mortgaged or otherwise exempt from attachment, the mortgagee, by properly recording the deficiency judgment, may lay claim to property which may be acquired by the debtor in the future. On the other hand, if the sale price is more than sufficient to cover the debt and the costs of the foreclosure proceedings, the surplus goes to the mortgagor.

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[1] See SUTHERLAND, W. A., "Code Pleading Practice and Forms," Vol. IV, p. 3260.

[2] WILTSIE, C. H., *op. cit.*, p. 21.

Right of Redemption.—In keeping with the development of law for the protection of the interests of the debtor, most states have passed laws which give the mortgagor the right to redeem property, even after it has been sold. The right of redemption is a personal privilege given by statute to the mortgagor after real estate has been sold under mortgage.[1] At one stage in the development of the law of mortgages the right to redeem the property extended only to the time of foreclosure and was definitely barred afterwards, but at present many states allow the debtor to redeem his property at any time within one or two years after foreclosure by paying the purchaser the price at which the property sold, plus the expenses of the sale and the costs of improvements bought by the purchaser since the date of sale. This leniency in behalf of the mortgagor creates considerable uncertainty as to the final status of the title to real estate sold under foreclosure. The property can be redeemed, however, only by full payment of the debt, even though it was sold for less at foreclosure.

Priority of Claims on Real Estate.—Most states have laws which make taxes the first lien against property, whether the taxes are assessed before or after the property is mortgaged. The property can be sold by the state to satisfy tax claims at any time regardless of other claims on the property. A judgment against the owner of the property also takes priority to the claims of a mortgagee, provided the judgment was filed in the records of the county before the mortgage was made. The proceeds of a sale to satisfy claims against real estate would then be distributed in the following order:[2] first, taxes and the expenses of the sale; second, judgments recorded prior to the time the mortgage was made; third, the first mortgage on the property; fourth, the second mortgage; fifth, personal notes and open accounts held against the owner.

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[1] See Wiltsie, C. H., *op. cit.*, p. 1416; Jones, L. A., "Law of Mortgages of Real Property," Vol. II, p. 629; and Wright, Ivan, "Farm-mortgage Financing," pp. 36–38.

[2] See Lilly, William, "Individual and Corporation Mortgages," pp. 41–43.

Farm-mortgage Certificates and Bonds.—Due to the fact that the denominations and the date of maturity of farm mortgages are often ill-adapted to the requirements of investors, the farm-mortgage banker sometimes holds the mortgages and issues certificates or bonds which are better adapted to the needs of the investing public. Thus, all the banks of the federal farm-loan system and a few other farm-mortgage banks issue and sell bonds which are guaranteed by mortgages held in trust.[1] When the federal land banks are in need of more funds to lend to farmers they simply deposit farm mortgages with the farm-loan registrar for an amount equal to the amount of the proposed bond issue. In turn the farm-loan registrar gives the bank a deed of trust for the mortgages.

By issuing bonds the bank can make available investments in denominations of $100, $500, and $1,000, or even wider variations. Also, the bonds need not be made for the same length of time as are the mortgages. Most of the federal land bank bonds in fact have been made for 20 years, whereas, their mortgages run more than 30 years. The farm-loan registrar must simply see that he at all times has mortgages whose total amount is equal to the amount of the bonds outstanding.

Similarly, a few farm-mortgage bankers make a practice of issuing certificates of various denominations which are adapted to the requirements of investors. The banker holds the mortgage as security for the certificates. Suppose, for instance, that the banker receives a mortgage for $7,500. He may find some difficulty in selling the whole mortgage. Then instead of attempting to sell the mortgage, he may issue fifteen mortgage certificates for $500 each and sell these separately.

Questions and Problems

1. From the point of view of the lender, what are the advantages of specific security over general security?

2. Contrast the open account and the promissory note as types of credit contracts.

3. When the banker takes a warehouse receipt for the borrower's commodity, does he have a mortgage on the property, or does he own the property? Explain.

4. From a legal standpoint, what are the chief differences between the chattel mortgage and the real-estate mortgage? Why has this difference developed?

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[1] In such cases the trustee holds what is known as a "deed of trust." The trustee represents both the mortgagor and the mortgagee.

5. Wherein is a crop lien similar and dissimilar to (1) a pledge, (2) the chattel mortgage, and (3) the real-estate mortgage?

6. What constitutes default of the mortgagor in the real-estate mortgage? Are the conditions of default determined by the state or by agreement between the mortgagor and mortgagee? Explain.

7. What is the chief distinction between equity and law?

8. Explain the process of foreclosure by equitable action.

9. Why is foreclosure by equitable action preferred in most states to the other methods of foreclosure?

10. Why have governments considered it necessary to establish the "right of redemption"? How may the redemption laws of a state affect the flow of farm-mortgage loans to that state?

11. List the claims on the real estate of a debtor in the usual order of their priority.

12. Explain why farm-mortgage bankers often hold the mortgage rather than pass it on to the investor. In this connection explain the function of the trustee.

References for Further Reading

JONES, L. A., "Law of Mortgages of Personal Property," 5th ed., and "Law of Mortgages of Real Property."

LILLY, WILLIAM, "Individual and Corporation Mortgages."

ROBERTS, I. P., "The Farmer's Business Handbook," 2d ed., Chap. 15.

SUTHERLAND, W. A., "Code Pleading Practice and Forms," Vol. IV, Chap. 137.

WRIGHT, IVAN, "Farm-mortgage Financing," Chap. 11 and Appendix A.

PART III

BANKING INSTITUTIONS

Bankers are middlemen between investors and borrowers. They buy farmers' notes and mortgages and sell deposit slips, bonds, and mortgages. Banking institutions are described in the following chapters from the point of view of their service to farmers. What factors determine the lending power of the farmer's bank? What determines the length of term of loans which the bank is adapted to make? How effectively are farmers' banking institutions connected with the whole banking system of the country and with the ultimate sources of loanable funds? Lastly, what are the methods used by the banks in obtaining loanable funds and extending loans to farmers?

CHAPTER XI

DEVELOPMENT OF CREDIT INSTITUTIONS FOR FARMERS

The problem of accumulating the loanable funds of investors and placing them at the disposal of borrowers has been assumed by banks and such semi-financial institutions as insurance and trust companies. The commercial banker not only pools the surplus funds of his community, but he also makes it his business to secure additional funds from outside the community to meet the needs of his customers. Thus he provides for safekeeping of the funds of his depositors and serves borrowers by maintaining a supply of loanable purchasing power. Similarly, the farm-mortgage banker serves both investors and borrowers. For the investor he finds investments; for the borrower he assembles loanable funds.

The statement was made in Chap. I that credit directs capital. But the banker supervises the extension of credit. He determines whether credit, and therefore capital, shall be directed to particular individuals and industries. He is the governor of the flow of credit.

Of course a considerable amount of credit is obtained directly from the original owners of surplus funds, but such direct borrowing falls far short of meeting the credit needs of farmers. The limited acquaintances and connections of the individual farmer usually make it impossible for him to obtain credit at opportune times and in sufficient amounts without the aid of the banker. The commercial banker, for instance, maintains a place of business in the center of the community which is easily accessible to both depositors and borrowers. Here, surplus funds are assembled and from the bank they are dispersed. Also, the banker establishes connections with bankers in other communities. Through these connections a surplus which accumulates in one section of the country can be transferred to other sections which are in need of funds. Such connections are impossible for the individual farmer. In the case of the farm-mortgage banker, funds are collected from a still more widely distributed group of investors. While the commercial banker occasionally is compelled to request funds from other communities, the farm-mortgage banker makes a common practice of obtaining funds from distant communities. The larger mortgage companies usually sell their bonds or mortgages over several states and in several financial centers.

The development of financial institutions to receive and dispense surplus funds was as inevitable as the development of stores to assemble and distribute goods. The banker is indeed a purchaser and seller of credit in very much the same sense that the merchant is a purchaser and seller of goods.

The organization of farm-credit institutions and the adaptation of the commercial banking system to the requirements of farmers is a recent development in the banking history of this country. The earlier development of a banking system to serve merchants and manufacturers was normal, since the credit needs in merchandising and manufacturing businesses developed earlier. The farmer remained more nearly self-sufficing. The money value of the investment and operating capital needed for a farm unit was relatively small up to the latter part of the last century. Land was cheap and his implements and improvements were scant and inexpensive. Moreover, his operating capital, such as feed and seed, as well as his consumption goods, was furnished largely from his own farm. In other words, his whole capital outlay was small and his consumption goods were obtained largely from the farm. On the other hand, merchandising and manufacturing have long involved a relatively large outlay of capital. Also, the merchant and manufacturer have long been almost wholly dependent upon the market for their capital and consumption goods. The manufacturer must buy all his raw materials and the merchant must buy his finished products.

The extensive capital requirements of manufacturers and merchants are largely responsible for the type of business organization known as the "corporation." As early as the seventeenth century, English merchants evolved the joint stock form of organization primarily for the purpose of raising the required amount of capital to operate such a large business, for instance, as the East India Company. The mechanical developments which occurred in the manufacturing industry in England during the latter part of the eighteenth and the first part of the nineteenth centuries resulted in greatly increasing the amount of capital required by the individual manufacturing unit. The process of capital raising for large manufacturing and merchandising concerns gave rise to the development of what is known as the "investment banking system." The investment banker assumed a large share of the function of finding investors and lenders for large manufacturers, merchants, and transportation companies.

Also, the credit needs of manufacturers and merchants led to the early development of the commercial banking system. These banks of course served to facilitate exchange transactions in all industries; but so far as the function of supplying loanable funds is concerned, the commercial banking system, including both state and national banks in this country, was established primarily for the purpose of supplying the needs of merchants and manufacturers. It is only during the present century that any extended effort has been made to adapt the system to the requirements of the farmer.

Although the credit needs of the farmer developed later than those of the other industries, they have, nevertheless, developed very rapidly during the past half century. The money value of the farm unit has doubled two or three times during this period. The acquisition of a farm and the necessary equipment has become more and more difficult. Moreover, agriculture has become commercialized to a far greater extent during this period. The farmer is more dependent on markets since he produces less of his own operating capital and consumption goods. Instead of using a large percentage of his own goods, he is emphasizing commercial production. The period of time involved in getting returns for his efforts has been extended and, hence, more financial aid is required. This point is particularly well illustrated in the cooperative marketing movement, one of the basic principles of which is the orderly marketing of products. Orderly marketing extends the time which the farmer must wait to get the returns from his product, and in many cases delayed payment is possible only if credit is accessible. At present (February, 1929) there is a considerable amount of agitation for the development of better methods of supplying farmers' cooperative marketing associations with the necessary credit.[1]

[1] The Agricultural Marketing Act, passed by Congress on June 15, 1929, provides for credit to be supplied to cooperative marketing associations from appropriations from the U. S. Treasury. See Appendix A.

The modern cooperative marketing movement is transferring a part of the problems of financing the marketing of farm products from the local buyer to the farmer or the farmer's cooperative organization.

Just as the investment banking system was instituted to raise investment funds for manufacturers, merchants, railroads, etc., the farm-mortgage banking system has been organized to raise investment funds for farmers. The function of supplying the increasing needs for farm-operating credit has been assumed largely by the commercial banking system, although some banking institutions, such as the credit unions in North Carolina, the cattle loan companies, and the federal intermediate-credit banks, have been established for the special purpose of supplying farm-operating credit.

In the development of agricultural financing machinery during the past 50 years, progress has been made along three rather distinct lines: (1) the adaptation of the old commercial banking system to the needs of agriculture; (2) the organization of new banking institutions which limit themselves strictly to agricultural financing; and (3) the development of insurance and trust companies and other businesses which are not strictly financial institutions, but which supply farmers with a large amount of credit.

THE ADAPTATION OF THE COMMERCIAL BANKING SYSTEM

In the development of commercial banking, since the establishment of the national banking system, in 1863, Congress has been concerned chiefly with the following objects: (1) the selection of a desirable monetary standard, whether it be gold, silver, or both; (2) the development of a currency system which would readily permit expansion or contraction of the currency according to the needs of the country; (3) the establishment of such interrelations among bankers as to make possible an equitable distribution of the loanable funds of the country. In the evolution of our present gold standard we are not specially interested here; in the adoption of a currency system which is flexible enough to supply the varying needs of the country we are interested, inasmuch as a more elastic currency system was a direct benefit to agriculture; but we are primarily interested here in the development of ways and means of equitably distributing the funds in existence. The farmer has been at a disadvantage in competing with other industries for funds.

State Banks Lose Note-issue Privilege.—The National Banking and Currency Act passed by Congress in 1863, with amendments which followed shortly after this date, deprived the state banks of their privilege of issuing currency. A unified national currency system was of course highly desirable, but unfortunately it worked a hardship on the agricultural communities served by state banks. In the first place, the National Banking and Currency Act definitely limited the total amount of currency which could be issued by the system to $300,000,000, and rendered further inflexibility in the currency by requiring that issues be based on the purchase of government bonds; second, the currency-issuing banks (national banks) were required to have a minimum capital stock of $50,000, which was entirely too large for profitable operation in the smaller agricultural communities; and, third, no effective system was provided for a proper distribution of funds over the country. The $300,000,000-limit on the total issue of national banks proved to be inadequate to meet the needs of the country; the $50,000-minimum stock of national banks resulted in depriving a large majority of agricultural communities of a note-issuing bank; and an attempt to apportion the currency in such manner as to serve all sections of the country proved to be a failure. Currency was apportioned to the different sections of the country roughly according to the banking facilities and credit needs, but it would not remain so apportioned. Bankers found more favorable lending conditions in the large financial centers of the East and a large percentage of the money was soon concentrated there to the disadvantage of the farming sections.

The Act of 1875.—Congress attempted to improve the banking situation in 1875 by removing the absolute limit on the amount of currency which could be issued by the national banks. But it so happened that at this time the price of government bonds, upon which bank-note issues were based, increased to the point that the issue of notes was unprofitable. The result was that the total supply of currency actually decreased in 1876. As for the old system of apportioning funds over the country, Congress simply admitted that it was a failure and abandoned it.

That the problem of supplying the farming communities and the smaller towns and cities with currency remained unsolved 20 years after the passage of the Act of 1875 is indicated by the report of the Indianapolis Monetary Commission in 1898. This Commission was elected to investigate the monetary needs of the country and to make suggestions for improvement. One of its recommendations was that a banking system be provided which would furnish credit facilities to every portion of the country, and that the loanable capital of the country be distributed in such manner as to equalize interest rates in the different sections.

The Act of 1900.—The year 1900 is notable in the adaptation of the banking system to meet the needs of agriculture. The minimum capital-stock requirements of national banks was reduced from $50,000 to $25,000; the tax on note circulation was reduced; and the percentage of notes issued to the amount of government bonds on which they were based was increased from 90 to 100. The first provision of this law made possible the establishment of national banks in smaller country towns, and, therefore, greatly improved the farm credit situation. The other provisions made bank-note issues more profitable to the banks and hence tended to increase the amount of money in circulation. These provisions helped the banking situation in all communities, but they were particularly welcome to the isolated farming communities which had suffered most from a shortage of credit facilities. That the reduction of the minimum capital requirements was welcomed is indicated by the fact that more than half of the new national banking charters granted between 1900 and 1920 were obtained by banks with a capital of only $25,000. Just slightly more than one-third of the national banks in existence in 1919 had less than $50,000 capital.[1]

Report of the Country Life Commission.—Students of agricultural problems realized that farm-credit facilities were far from adequate. In 1908, President Roosevelt appointed the Country Life Commission to make an investigation of rural-life problems in general. The report of the Commission indicated that one of the most important factors which were hindering the proper development of agriculture was the lack of sufficient credit. It was pointed out that country banks were not only unable to supply the amount of credit needed at certain times of the year, or in special emergencies, but that interest rates were very high.

[1] Comptroller of the Currency, *Ann. Rept.*, 1919, Vol. II, p. 38.

The Commission, therefore, recommended that a more adequate system of rural credit be devised.

The National Monetary Commission.—The financial panic of 1907 emphasized the weaknesses of the whole banking system —weaknesses which were inherent in the system from the date of its organization. The Indianapolis Monetary Commission referred to above had pointed out certain of these shortcomings, but aside from the few changes made by the Act of 1900 nothing had been done. In 1908, while the memory of the disruption of the 1907 panic was still fresh, the National Monetary Commission was established and delegated to make a thorough study not only of our monetary and banking system, but also of the monetary and banking systems of Canada and many of the leading European countries. The Commission reported its findings to Congress in 1912. Seventeen specific defects in the banking system were pointed out. Certain of the criticisms apply to agriculture in particular. In the first place, the inequitable distribution of funds and the great variation of interest rates in the different sections of the country were emphasized, as had been done by the Indianapolis Monetary Commission. Thus, it was pointed out that the limited discount market for the ordinary banker led to heavy concentration of the funds of country bankers in New York and other financial centers. Second, the Commission reiterated the old criticism that the amount of currency in circulation could not be contracted or expanded according to the needs of the country. Hence, the problems of an appropriate amount and an equitable distribution of funds had been present since the National Banking and Currency Act was passed in 1863. Third, too much of the banks' funds were tied up in reserves.

The Creation of the Federal Reserve System.—The Federal Reserve Act of 1913 was passed with a view to the elimination of the defects of the old banking system. Certain of the provisions of the Act, and the amendments and rulings which followed, were particularly effective in improving the credit situation in the farming sections of the country. Notable among these were: (1) the reduction of the reserve requirements for country banks from 15 to 7 per cent of their deposits; (2) the creation of flexibility in the currency supply of the country; and (3) the creation of a discount market more readily available to country bankers.

Reduction of Reserves.—Under the old national banking system country banks were required to keep money in reserve to the extent of 15 per cent of their deposits. According to the law 6 per cent must be held in the banks' own vaults and 9 per cent might be deposited with other banks. This meant that a bank with deposits amounting to $500,000 was required to store away a minimum of $30,000 in cash and maintain a deposit of $45,000 with other banks. That is, so far as the extension of loans was concerned the full $75,000 was useless to the bank. It was a kind of non-usable confidence fund. The Federal Reserve Act, with its amendments, and the rulings of the Federal Reserve Board have reduced the "idle" money of the bank of the above illustration from $75,000 to $35,000. Moreover, the bank may borrow the full amount from the federal reserve bank in case of a shortage of funds. In other words, in emergencies the full $75,000 may be made available to lend to the customers of the bank.

Flexible Currency Supply.—For the perennial problem of an inflexible supply of currency, the Federal Reserve Act offers a solution by making it possible to issue currency on the basis of commercial paper. Under the old national banking law, banks could issue currency only by purchasing government bonds with which to secure the issue. The result was that when the price of government bonds was high, note issuing was unprofitable to the bank and, conversely, when bond prices were low note issuing was profitable. But it so happens that when business conditions are good and a great amount of currency is needed the price of government bonds is likely to be high, and when less currency is needed the bonds are likely to be cheap. There was, therefore, little or no correlation between the need for currency and the amount of currency issued. In fact, it frequently happened that the currency supply was actually decreased just at a time when business required an increase. The Federal Reserve Act provides for the issue of currency by the federal reserve banks on the basis of 40 per cent of gold and 60 per cent of commercial paper. As the requirements of business increase member banks will require more currency, and in order to get the additional supply of currency they rediscount their customers' notes with the federal reserve bank. Thus, the federal reserve bank obtains the basis for currency issue in proportion to the increased needs for currency. On the other hand, the amount of currency in circulation contracts as the currency requirements of business decrease.

This process is inevitable since the local bank cannot afford to pay the reserve bank interest on idle funds. When the currency requirements of the local bank's customers decrease, the notes are returned to the federal reserve bank and cancelled, unless they are needed elsewhere.

Discount Market. The Federal Reserve Act provides for a ready market for agricultural and commercial paper. Under the old banking system one of the chief difficulties of bankers not located in the great financial centers was that of finding a market for customers' paper. The country banker who found himself in need of extra funds either issued new currency or was compelled to seek direct loans from his city correspondent. The correspondent was a very uncertain source, since he would extend loans only in case he could not find some more satisfactory use for his funds.

Since there was scarcely any such thing as taking the notes of his farmer and merchant customers and selling them on a discount market, the country banker was in poor position to meet an emergency by liquidating his holdings. He was attracted by the New York market for "call" loans which, presumably at least, could be turned into cash on a moment's notice in case an emergency arose. Hence, instead of using all the funds in the home community, most country bankers were continually placing funds in New York.[1] By attempting in this manner to maintain the liquidity of his funds the country banker was frequently unable to supply the credit needed at home. The federal reserve system makes such maneuvering unnecessary. The country banker may now feel safe in using all his funds at home. If he should happen to need more cash for emergencies, he has a federal reserve bank, one of the primary purposes of which is to rediscount the notes of its members. He simply bundles up some of the notes which have been made to him by farmers and merchants, indorses them, and passes them on to the federal reserve bank and receives cash in return. Not only is the local banker supplied with a ready market for his securities, but also the federal reserve bank of the district may find a ready market in other sections of the country in case more funds are needed. The law requires that in case of necessity any one of the twelve federal reserve banks, which may have a surplus of funds on hand, may be required to rediscount the notes of any reserve bank. In this manner the market for the commercial and agricultural paper of a country banker is nation-wide. Surplus funds flow readily within each of the twelve reserve districts and from one district to another. The discount market established by the Federal Reserve Act has gone far in solving the half-century-old problem of equitable distribution of funds over the country.

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[1] This, of course, was not the sole reason for investing on the call-loan market. Country bankers often invested funds in call loans during the slack periods of the year when little credit was needed in the home community.

"Agricultural Paper."—In keeping with the general plan of creating a better discount market for paper held by banks, Congress took special cognizance of farm credit needs in the Federal Reserve Act by providing a longer rediscount period for "agricultural paper" than that provided for commercial paper. The maximum rediscount period for agricultural paper was set at six months, while commercial paper was limited to three months. One of the chief disadvantages the banks had found in lending to farmers was that farmers needed loans for a period which was longer than the banker desired to have his funds tied up. Farm paper was looked upon as more or less "frozen" security—paper which could not be turned into cash on short notice. The limited ability of the banker to replenish his funds because of the lack of discount market and the slow and, sometimes, unprofitable business of issuing currency kept the banker in fear of not being able to meet emergency demands for funds. The result was that the ordinary commercial loans and the New York call loans were more attractive investments than were farm loans. When loans were made to farmers they were usually made for one, two, or three months with a probability of renewal, regardless of the time the farmer needed the loan. Thus the banker attempted to maintain short-term, liquid securities. As a matter of fact, the practice of lending to farmers for three months when their crops would not be ready for the market for six months afforded the banker protection which was largely only psychological. Since the farmer was usually unable to pay until his product was ready for the market, the only alternative for the banker who insisted on payment before that date was to foreclose mortgages which he might hold against the borrower, or to force collection from indorsers of the note. In reality, the banker almost invariably went to

the trouble of renewing the note, and waited until the normal time for its repayment. Strangely enough, the practice of limiting farm loans to three months is common in many sections of the country 16 years after the creation of the federal reserve system.

The recognition by Congress that the farmer's business requires operating loans of a distinctly longer period than that of merchants and manufacturers marks a very significant step in the process of adapting what was essentially a commercial banking system to the needs of farmers. Now the farmer's bank not only has a market for its commercial paper, but also a market specially adapted to its agricultural paper. It is true that difficulty has been experienced by bankers in securing the required financial statements from farmers, but this is no fault of the banking system.

After the federal reserve system was established, and particularly during the time of the agricultural depression following the period of war prices, there was considerable agitation for some sort of reform which would supply the farmer's needs for loans to extend for a period longer than the six months allowed by federal reserve banks and yet shorter than the minimum of five years allowed by the federal farm loan system. As a result of this agitation, the Federal Reserve Act was amended in 1923 so as to permit rediscounting of agricultural paper for a maximum period of nine months. This extension of the rediscount period seems to have established a discount market for farm paper which will serve all the demands of the local banker in supplying farmers with the ordinary operating loans.

Non-member Banks.—There remains, however, one missing link in the banking system designed to establish ready connection between all industries and the loanable funds of the country, *viz:* the great majority of the state banks are not members of the federal reserve system. And it happens that a majority of the farmers of the country are served by state banks. These banks of course have correspondents who are able to obtain the full advantages of the discount market of the federal reserve system, but the service is not directly available for non-member state banks. During recent years efforts have been made to get more state banks into the system, but without very great success. Either the minimum capital requirement ($25,000) is too high, or certain other regulations and requirements are unsatisfactory to most of the small state banks. Membership in the system involves a loss of interest on the reserve balance with the reserve bank and for some banks it involves a loss of income in the form of charges for exchange. Other state banks object to the so-called "red tape" of the federal reserve system, while some object to the financial statements required in connection with paper offered for rediscount.

THE ESTABLISHMENT OF AGRICULTURAL BANKS

During the past 50 years, certain banking institutions have been developed for the distinct purpose of supplying the credit needs of farmers. In most cases, these banks have been designed to supply either investment credit or operating credit which is needed for a longer term than that to which commercial banks are adapted.

Farm-mortgage Companies.—The first and most pressing credit need to develop in agriculture was for loans to buy and improve farm land. Commercial banks were at least partially supplying the need for operating credit, but investment credit banks for farmers were scarcely heard of until after the Civil War. The farm-mortgage banking business in the United States seems to have originated in the Middle West between 1840 and 1850.[1] Prior to this time the comparatively small amount of mortgage credit used by American farmers had been obtained either from the Government by purchasing public lands on time, or from neighbors and individuals of the near-by towns. Lands were either free or very cheap and very little capital was necessary. But with the opening up of the great agricultural area of the Middle-western states a considerable amount of capital was required. The one place these westerners could expect to obtain capital was "back home" in the East. Hence, certain business men in the growing towns, confident of the future of this newly settled country, began advancing money to farmers and, in turn, selling the mortgages to investors in the eastern financial centers. The business required a very small amount of capital. The first few loans could be made and, through the sale of mortgages as they came in, a continuous supply of funds from the East to the western farming communities could be maintained. At the same time companies were organized in certain cities of the East, particularly in New England. The managers of these companies obtained mortgages from the West and sold them to their neighbors and friends.

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[1] Herrick, M. T., and R. Ingalls, "How to Finance the Farmer—Private Enterprise—Not State Aid," Chap. 2. This is the chief source for the brief summary of the history of farm-mortgage companies presented here.

But these early so-called "farm-mortgage companies" were engaged in this business along with other businesses and handled securities other than farm mortgages. It was not until the 'seventies that the farm-mortgage business became specialized. With the new spurt of development in the West after the Civil War these farm-mortgage companies experienced a rapid development. New companies were organized in great numbers, and loans were readily made at 10 and 12 per cent interest with a 10 per cent cash commission.

The enthusiasm for the development of the West with capital secured through farm-mortgages developed into the so-called "farm-mortgage craze" in the 'eighties. The "craze" proper lasted from 1886 to 1893. At its height there were 167 licensed companies selling western and southern securities along the Atlantic seaboard. Thirty-nine companies had nearly 800 agents in New York State alone. There were no laws regulating the business up to 1887, when Connecticut legislators became aroused and passed a law creating the office of commissioner of foreign mortgage companies and requiring licenses for such companies. Similar laws were passed in other states, and many companies failed to qualify. Numerous complaints by investors swamped the commissioners' offices in New England. Newspapers took up the matter and forced investigations. The result was that a large percentage of the farm-mortgage companies were placed in the hands of receivers. Lands had been appraised very liberally and loans were made in many cases which amounted to almost as much as the overcapitalized value of the farms. Debentures were issued and, at times, sold below par as an added inducement to the investor. Such haphazard business was doomed to the ruin which occurred during the great crisis and general financial panic of 1893.

The farm-mortgage business required many years to regain a respectable place in the financial system of the United States. In 1894, the year after the panic, only 15 companies renewed their licenses to do business in the East and, for a time, no company was doing active business in the South. With the general improvement of agricultural conditions after 1896, the farm-mortgage banks which had maintained their solvency began to reëstablish and expand their business. Sobered by the recent experiences, these banks followed a conservative policy of gradual expansion. More scientific land appraisals were made and loans were placed with greater care. Another phase of the development of a more stable business was the adoption of more uniform practices among these bankers. Farm-mortgage banking was becoming, for the first time in our history, a well-organized branch of our financial system. In 1914, the Farm Mortgage Bankers' Association of America was organized for the general purposes of securing greater uniformity of practice among themselves and of supplying the public with current information regarding the business. Several hundred of the better known banks are members of the Association. It was estimated[1] in 1921 that the members of this organization had in force a total of approximately $2,000,000,000 in farm mortgages. This was 25 per cent of the estimated total farm-mortgage indebtedness of the country. Farm-mortgage companies not members of this Association had about $1,200,000,000, or 15 per cent of the total for the country.

The Federal Farm Loan System.—Although the efforts in banking reform from the time of the appointment of the Indianapolis Monetary Commission in 1897 to the passage of the Federal Reserve Act in 1913 were centered in the reform of the commercial banking system, the agricultural interests never lost sight of the need for a better system of farm-mortgage financing. Students of the question pointed out four fundamental defects of the farm-mortgage system then in existence: (1) interest rates and commission charges were disproportionately high when compared with those paid in other industries; (2) the term of farm loans was far too short for repayment of the loan out of the products of the land; (3) the methods of repayment were not satisfactory; and (4) the possibility and conditions of renewal were uncertain.

Here, as was the case with commercial banking reform, we looked to the experience of European countries. Certain European countries, especially Germany, had developed a system of cooperative agricultural banks. Reports of the success of these banks had by 1908 aroused public interest in the possibilities of cooperative credit for farmers in this country. By 1911, such widespread interest in agricultural credit had developed that the American Bankers' Association took up the matter. A committee was selected from this body to undertake a study of agricultural credit at home and abroad. The next year, President Taft requested our ambassadors to Germany, France, and Italy and the Ministers to Belgium and the Netherlands to investigate the agricultural credit systems in operation in those countries. The three major political parties in the campaign of 1912 adopted planks favoring the improvement of agricultural credit facilities. In March, 1913, the United States Commission, consisting of seven members, was created to make a further study of agricultural credit organizations in European countries. Cooperating with this government commission was the American Commission created by the Southern Commercial Congress. This latter commission consisted of seventy members representing twenty-nine states, the District of Columbia, and four Canadian provinces.

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[1] Chassell, E. D., *Chicago Journal of Commerce*, Feb. 27, 1922.

Some of the main features of the reports of these commissions are as follows: (1) that long-term and short-term credit cannot properly be supplied by the same institution, since two distinct types of banking service are involved; (2) that reform in our long-term credit system is the most urgent and must come first; (3) that the German cooperative system is not entirely adapted to Americans and to American conditions; and (4) that the part of the government in agricultural credit reform in this country should be limited to the establishment of suitable banking machinery and the strict supervision of operations.

Three years more of discussion and consideration of the question resulted in the Federal Farm Loan Act of 1916. The system of farm-mortgage financing created by this Act includes many of the features of European farm-mortgage banking systems such as: (1) the amortization plan of repayment of loans; (2) the tax-exemption feature; (3) the sale of bonds based on a collection of farm mortgages; (4) specific requirements concerning the ratio of loans to resources; (5) strict limits as to interest charges; and (6) the cooperative principle. The cooperative feature was included, however, only in a modified form.

The Federal Farm Loan Act provided for a dual system of farm-mortgage banks, namely, a system of twelve federal land banks to be organized and established by the federal government, and a system of joint stock land banks, unlimited in number, to be established strictly by private enterprise. To supervise the whole system a Federal Farm Loan Board was created.

The capital stock of the federal land banks was subscribed in the beginning by the federal government, but has since been purchased by the borrowers.[1] The capital of the joint stock land banks was supplied from the beginning by private enterprise. The loans of both types of banks are made from funds obtained through the sale of bonds. Bonds are issued under the supervision of the Federal Farm Loan Board and sold to the public directly, or indirectly, through investment bankers in the larger financial centers. The bonds are secured by a collection of farm mortgages.

Loans are made directly to farmers by joint stock banks, while the federal land banks extend loans through local farm-loan associations organized by borrowing farmers specifically for the purpose of handling such loans. Federal land banks are cooperative concerns in that (1) each borrower is required to buy stock in the bank to the amount of 5 per cent of his loan, and (2) each borrower must join the local loan association and become jointly responsible for the payment of the loans made to his fellow members.

Credit Unions.—The widely heralded possibilities of cooperative credit banks in this country during the early part of the present century had resulted in the establishment of cooperative credit unions or associations in several states prior to 1916. Special laws were passed from 1908 to 1915 providing for their organization in New Hampshire, Massachusetts, New York, North Carolina, Rhode Island, Texas, Oregon, Utah, and South Carolina. The credit unions were to supplement local banks and credit merchants in supplying farmers with operating loans. Little has been done, however, in the actual organization and operation of credit unions in any states, except Massachusetts, North Carolina, and New York. North Carolina is the only state in which there has been any extensive development of such organizations among farmers. In this state, the Superintendent of Cooperative Associations and Credit Unions supervises the organization and operations of the credit unions. According to the reports of this official, twenty-two credit unions were operating in North Carolina in 1921.

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[1] December 31, 1925, the federal government owned only $1,331,930.00 of a total capital stock of $53,769,567.50 for the twelve federal land banks. See Federal Farm Loan Board, *Ann. Rept.*, 1925.

The credit unions of North Carolina were organized primarily for the purpose of avoiding the high costs of merchant credit and to promote the cooperative purchase of certain farm supplies. They operate on a very small scale, the total assets of the twenty-two unions in 1921 being only $90,819.[1] Loanable funds are obtained from shareholders and depositors, who are almost universally farmers of the communities in which the associations operate.

The agricultural credit union in this country is only in the experimental stage and, with our well-organized commercial banking system, it is doubtful whether such local credit organizations will ever become very important. It is simply an attempt to marshal the surplus funds of the community and lend them to the farmers who need funds. Since this function is now being performed by the local banker in a fairly efficient manner, it will be difficult to replace him.

Cattle Loan Companies.—The inadequacy of the commercial banks in supplying the credit needs of cattle producers led to the organization of "cattle loan companies" shortly after 1900. Cattlemen who operated the larger ranches of the West and Southwest were often unable to secure loans of sufficient amounts from local banks, partly because of the normally small size of the local banks and partly because the banks were restricted by law from lending more than 10 to 25 per cent of their capital and surplus to any one borrower. Frequently cattlemen desired loans which amounted to more than the total capital and surplus of the local bank. In addition to the large size of cattle loans, they were often required for a longer period of time than was desirable for the local banker.

During the latter part of the nineteenth century, livestock commission firms located in such livestock centers as Chicago, Kansas City, East St. Louis, Fort Worth, and Denver attempted to supply the credit needs of customers as an inducement to obtain and hold the commission business of cattlemen. But their facilities proved inadequate and the first regular cattle loan company was organized in 1902.[2] The new credit agencies developed rapidly in the livestock marketing centers. They obtained a large share of the cattle loan business which had formerly been done by the commission companies, the local country banks, and the larger commercial banks of the livestock markets. Two main types of companies developed: the independent company and the company closely allied with the big commercial banks of the livestock centers. The latter type of company was in fact often organized and managed by the directors of the commercial bank. In this manner the legal limitation set on the size of loans of commercial banks was avoided.

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[1] Bureau of Labor Statistics, *Bull.* 314.

[2] Ebersole, J. F., "Cattle Loan Banks," *Journal of Political Economy*, June, 1914.

The cattle loan companies obtain their funds largely by the sale of cattle paper to commercial banks, federal intermediate-credit banks, and individual investors. They are not deposit banks and their capital stock is small as compared with the total amount of loans. In these respects they are similar to the farm-mortgage bank. Also, they are similar to the mortgage bank in that their borrowers and investors are distributed over a wide territory. Loans are secured by chattel mortgages on cattle, while the farm-mortgage banker's loans are secured by real estate.

The cattle loan company is a type of banking institution which has been developed to serve a special branch of the farming industry. Loans are made largely for operating purposes, but they are better adapted in size and length of term than commercial banks are able to supply. Their rapid development seems to indicate that they are meeting a distinct need.

The Federal Intermediate Credit System.—Although the Federal Reserve Act and the Federal Farm Loan Act greatly facilitated the movement of the loanable funds of the country into the farming industry, many students of the agricultural financing problem pointed out the necessity of still another nation-wide system of banks. This system of banks, they held, should be adapted to the particular purpose of extending farm loans for a period of time longer than was desirable for deposit banks and yet not as long as the term of farm-mortgage banks. After the great fall in the prices of agricultural products in 1920 and 1921, numerous so-called "farm-relief" measures were presented in Congress. Among these measures the various proposals for improvement in the farmer's credit facilities seemed to be the most persistent. In 1921, the War Finance Corporation, which had been organized by the government in 1918 to aid industry in meeting the increasing demands brought about by the war, became predominantly an agricultural financing organization. Through this organization, the government lent approximately $300,000,000 for agricultural purposes from August, 1921, to November, 1923.[1] Loans were made for a term of 1 year with a possible extension and renewal to 3 years.

Although the War Finance Corporation was an emergency organization, its excellent service to farmers' marketing organizations, small banks, and livestock loan companies gave impetus to the demand for a permanent banking system to supply what had come to be called middle-term or intermediate-term credit. In the first place, it was argued that livestock loan companies[2] were operating with an entirely inadequate market for their securities, inasmuch as many livestock loans were undesirable for commercial banks because the term was too long. Many livestock producers desired loans running from 1 to 3 years, which term made the paper ineligible for rediscount with the reserve banks. Hence, much of the livestock security was left out of the regular credit channels of the commercial banking system. In the second place, there was strong pressure during the period of agricultural depression for better facilities for financing the cooperative marketing associations. The War Finance Corporation had given liberal assistance, but commercial bankers were on the whole rather conservative in financing these "mush-room" organizations. Many agricultural leaders felt that in the cooperative movement lay the farmer's greatest hope, and that one of the greatest needs of the cooperative association was ample credit facilities. In the third place, certain legislators and agricultural leaders maintained that the six-month period for rediscounts with the federal reserve banks was too short even for operating credit for the regular crop farmer.

Such arguments as the above, with the general clamor for some sort of "farm-relief" legislation, induced Congress to pass the Agricultural Credits Act of 1923, creating the federal intermediate-credit system. The purposes of this legislation may be summarized as follows: (1) to establish a banking system particularly designed to make loans for a term adapted to the turnover period of the farmer and stock raiser, and (2) to relieve the federal reserve system and deposit banks in general of at least some of the burden of carrying notes of the longer maturities.

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[1] War Finance Corporation, *Ann. Repts.*

[2] The old term "cattle loan" company is being replaced by the broader term "livestock loan company."

The Act provided for two main types of banks: (1) twelve regional banks known as federal intermediate-credit banks to be established with government capital under the supervision of the Federal Farm Loan Board; and (2) banks known as national agricultural-credit corporations and rediscount corporations to be established with private capital under the supervision of the Comptroller of the Currency.[1] The federal intermediate-credit bank obtains its loanable funds, aside from its capital and surplus, by the issue and sale of bonds and by rediscounting notes with federal reserve banks and other intermediate-credit banks. The intermediate-credit bank makes no loans directly to farmers, but discounts agricultural paper for commercial banks, livestock loan companies, agricultural credit corporations, cooperative marketing associations, other intermediate-credit banks, cooperative banks, savings banks, and farmers' cooperative credit associations. Direct loans or advances are made to farmers' cooperative marketing associations. National agricultural-credit corporations may obtain loanable funds, in addition to their capital and surplus, by the sale of bonds and by rediscounting paper with the rediscount corporations and intermediate-credit banks. They make loans directly to farmers. The rediscount corporations are designed to supply a ready discount market for national agricultural-credit corporations. Their supply of loanable funds may be replenished at any time by the sale of any paper which they may have discounted.

OTHER SOURCES OF FARM CREDIT[2]

Besides the ordinary commercial banks and the distinctly agricultural banks, there are several sources of greater or less importance in supplying farm credit. These sources include individuals and certain types of business concerns and banks which are attracted by farm investments. Loans made by these agencies arise chiefly under one or more of the following circumstances or situations: (1) the sale of farms; (2) the landlord-tenant relationship; (3) individuals of the community attracted by farm securities as investments; (4) the desire for safe investments by concerns which by the nature of their business have large surpluses to invest; and (5) inability of the farmer to get sufficient credit from the local bank. The first three of these five situations give rise to loans by individuals; the fourth situation accounts for the loans of insurance and trust companies, savings banks, and building and loan associations; and the last named circumstance largely explains the practice of obtaining credit from the merchant.

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[1] At the end of 1926 no rediscount corporations had been organized, while only three national agricultural-credit corporations had been organized and two of these had been liquidated.

[2] See appendix A for a description of the credit provisions of the Agricultural Marketing Act of 1929.

Individuals.—The total of farm loans obtained from individuals undoubtedly exceeds those from any other one source, even the local banks. This is accounted for largely in the partial-payment method of selling farms, whereby the seller accepts part payment and a mortgage to cover the remainder of the sale price. This practice is particularly common in the sale of farms by farmers who are retiring. Also, the practice is common in the newer sections where large ranching or lumbering concerns are selling land for farming purposes.

Farm-mortgage loans are often made by individual farmers and local merchants who are seeking a long-term investment for their surplus funds. They choose the farm mortgage because of a lack of knowledge of other investments, or because of a special preference for the farm mortgage. Farm mortgages were formerly very attractive investments because of the high interest yield, but with the establishment of the federal farm-loan system and the increased competition of insurance companies and the old private mortgage companies this particular attraction is not so great. The safety element, however, will continue to attract individual lenders.

The landlord-tenant relationship is the basis for many individual credit transactions, particularly in the South where share-tenancy and the "cropper" system are prevalent. The tenant is often unable to offer security which is satisfactory to the banker or the merchant. Sometimes the landlord indorses his note at the bank or "stands good" for an account with the merchant, but he often makes direct advances in the form of supplies or cash.

Merchants.—Farmers obtain a large amount of credit from local merchants. Their extensive practice of running credit accounts, rather than borrowing money from the bank and paying cash for supplies, is explained largely by the following conditions: (1) inability to obtain loans from the bank because of poor credit rating; (2) convenience of running a credit account, together with ignorance or indifference as to credit costs; and (3) custom.

In the early days before banking facilities were extended to the small farming communities, the local merchant, or factor, assumed the function of supplying his farmer customers with credit. Merchant credit was particularly prevalent in the cotton- and tobacco-producing regions. Banking facilities have now become available to all farmers, but the force of custom has helped to maintain the merchant credit system.

Many farmers run accounts with merchants because of the convenience of the service, or because of a lack of understanding of the costs. But probably a more fundamental explanation of the practice is the inability to obtain bank credit. As a rule, the banker is more careful than the merchant in accepting credit risks. In the first place, the merchant's primary business is to sell merchandise and the extension of credit often increases his list of customers. Credit acts as a special inducement to a certain class of farmers. Incidentally, in the process the merchant gets many poor accounts. On the other hand, the extension of credit is the primary business of the country banker, and there is no particular advantage to be gained by obtaining more loans by accepting poorer security. In the second place, the banker's business is closely supervised by government officials. Even if he desires to take poorer credit risks, government supervision is conducive to care and conservatism. Hence, the banker is likely to require a mortgage, or an indorsement, unless the borrower is well recognized as a good risk. Rather than mortgage his teams and crop, or secure the indorsement of a friend, the farmer goes to his merchant and obtains credit on easier terms.

In order to be able to extend credit, most local merchants find it necessary to borrow from the banker or to obtain goods on credit account with the wholesaler. The extension of credit by the wholesaler in turn increases the amount of credit which he must seek from the banker. The result is that the farmer who trades on account is largely borrowing indirectly from the banker. The more progressive farmers are realizing that such a roundabout system of obtaining credit is very expensive.

The merchant credit system is obviously becoming less prevalent, and the local banker is supplying a larger and larger portion of the short-term credit needs of the community. Historically, the merchant has performed a valuable service in extending credit to farmers, but the economy of specialization is slowly directing the credit business to the banker.

Savings Banks, Insurance, and Trust Companies. *Savings Banks.*—The numerous savings banks and savings departments of commercial banks collect an enormous amount of loanable funds, since the smaller investors find the savings bank both safe and convenient. Such advertising, as "a dollar opens a savings account with us," attracts funds which might never be saved to invest in bonds of $100 to $500 denominations. Also, the savings banks are conveniently located for a large percentage of the people—they are home institutions. Moreover, the savings banks are rather strictly supervised by the state governments and, therefore, are widely recognized as being excellent depositories for the funds of those who do not care to make their own investments.

Savings banks usually pay 3 or 4 per cent interest on deposits and must, in turn, find some profitable and safe investment. The farm mortgage has long been recognized as one of the best long-term investments available and, until recently, has paid a relatively high rate of interest. Concurrently with the general reduction of interest rates, the marketability of the farm mortgage has improved and it remains one of the best investments for savings banks. It is so recognized by the state supervising officials.

Insurance Companies.—The contingencies of the insurance company are such that surplus funds must be accumulated. The premiums of a policyholder in a life insurance company, for instance, may accumulate for a long period of years before the company is called upon to pay the policy. Since the current needs of the company to pay policies is only a small portion of the total funds collected, there is always a surplus to invest. In fact the investment of this surplus is one of the most important sources of profits of the insurance company.

The long-term insurance periods of the life insurance company adapts it to long-term investments. At the same time, safety is of paramount importance in the investment of the funds of policyholders. As is the case with savings banks, the state governments supervise the investment policies of life insurance companies. The farm mortgage not only meets the safety and long-term requirements of the life insurance company investments, but it pays a satisfactory rate of interest. As a result, insurance companies are estimated[1] to have held about 15 per cent of the total farm mortgages of the country in 1921.[2] According to the report of the Association of Life Insurance Presidents for Oct. 31, 1921, insurance companies had $1,247,300,000 outstanding in first mortgages on farms. Life insurance companies are developing very rapidly and will in all probability remain one of the most important sources of investment credit for farmers.

Trust Companies and Estates.—The trust company, or trustee, holds property or funds "in trust" for its wards. Property or estates are often turned over to trust companies, either by preference of the owner or by order of the courts because of the owner's inability to manage his affairs. Formerly, the business of the trustee was almost wholly restricted to handling the business affairs of minors and persons who were physically or mentally incapacitated, but in recent years it has become common for normal and capable individuals to place their financial affairs in the hands of a trust company.

In most of the states trust companies are rather strictly supervised, particularly in the matter of selection of investments for trust funds. Many of the states specify the types of investments which must be made with trust funds. Farm mortgages are almost universally placed second only to government bonds in the preferred lists of investments. While no estimates are available as to the total amount of farm mortgages held by trust companies, they are in the aggregate an important source of farm investment credit.

Building and Loan Associations.—While the rapid growth of building and loan associations in America during recent decades has made them a primary source of credit for urban development, they are of importance in farm-mortgage financing only in a few of the Northern states. Ohio and Pennsylvania building and loan associations seem to be the leaders in extending their business to farm financing.

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[1] See *Chicago Journal of Commerce*, Feb. 27, 1922; and U. S. Dept. Agr., *Bull.* 1047.

[2] Some of these farm mortgages are held by other insurance companies, but a very large percentage of the total are held by life insurance companies.

Endowed Institutions.—A great number of endowed institutions, such as schools, hospitals, libraries, and research foundations, find the farm mortgage an attractive investment.

State Governments.—Several states at one time or another have operated farm-credit departments through which mortgage loans are made with funds secured by state bond issues. The states which have done most along this line are South Dakota, North Dakota, and Minnesota.[1] Other states of less importance include Idaho and Montana.

The Rural Credit Board of South Dakota was created by the legislature in 1917, but after making loans of $46,500,000 it ceased to operate as a lending agency in 1925. The Bank of North Dakota was established in 1919, and its Farm Loan Department had made loans on farm mortgages amounting to $30,842,073 up to the end of 1928. The Department of Rural Credit of the State of Minnesota was established in 1923, and its loans to farmers up to the end of 1928 amounted to $52,054,000.

Some idea of the importance of state loans in these states may be obtained by comparing these figures with the 1925 Census figures for the total mortgage debt of "full owners." The total state loans of these three adjoining states to the end of 1928 was $129,396,073, while the total mortgage debt of full owners was $449,743,438. In South Dakota, the volume of state loans was equal to almost 50 per cent of the total mortgage debt of full owners; in North Dakota, the percentage was 37; in Minnesota, the percentage was approximately 20.

In general, the systems of state credit in these states are the same. Funds are raised by issuing bonds on the state's credit. The rates on South Dakota mortgage bonds varied from $4\frac{1}{6}$ per cent in 1918 to $5\frac{2}{3}$ per cent in 1921, while the rates paid by farmers ranged from $5\frac{1}{2}$ to 7 per cent. North Dakota bond rates ranged from $4\frac{1}{2}$ to 6 per cent, while rates to farmers varied from 6 to $6\frac{1}{2}$ per cent. Minnesota bond rates ranged from 4 to $4\frac{3}{4}$ per cent and presumably the rates to farmers were lower than in the other states.

The future of the state credit systems in North Dakota and Minnesota is uncertain. The system has been abandoned in South Dakota. According to the 1928 report of the Rural

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[1] See *Ann. Repts.*, Rural Credit Board of South Dakota, the Department of Rural Credit of Minnesota, and the Bank of North Dakota.

Credit Board of South Dakota, 40 per cent of its loans had been foreclosed at the end of that year, and direct state appropriations of $400,000 had been made to meet its bond obligations. Of course the board made loans during a very severe depression, and the indications are that it made many loans which insurance companies and other lending agencies had examined and considered undesirable. The indications are that the board will continue to be only a collecting agency, at least for many years.

The North Dakota and Minnesota Departments have had fewer foreclosures. The North Dakota Department had foreclosed mortgages amounting to $2,000,000, or about 7 per cent of its total loans since organization. In Minnesota foreclosures were $2,357,986 or about 4 per cent of its loans. These states continue to make farm loans, but loans are made on a more conservative basis than they were during the first few years of operation.

Many states at various times have provided that all or a part of their state and common school funds and funds from the sale of state lands be invested in farm mortgages. These include Arizona, Colorado, Indiana, North Dakota, Oklahoma, Oregon, South Dakota, and Utah. Wisconsin, New York, and New Jersey have had such plans but they have been abandoned.[1] The total loans from such funds are not a very significant part of the total farm-mortgage loans in any of the states.

THE AGRICULTURAL-CREDIT SYSTEM

Figure 3 shows roughly the direct and indirect connections between the original owners of loanable funds and farm borrowers. A close study of this diagram should give a fairly accurate mental picture of the relationship of financial institutions to borrowers and investors and of each institution to the others of the whole financial system. The more important immediate sources of farm credit are indicated on the diagram by heavy lines. At present, commercial banks and merchants are by far the most important sources of operating and consumption credit, while insurance companies, farm-mortgage companies, joint stock land banks, and federal land banks are the chief sources of investment credit. In the future, the relative importance of the merchant as a source of credit is likely to decrease, while the importance of the cooperative marketing associations,

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[1] WRIGHT, IVAN, "Farm-mortgage Financing," Appendix E.

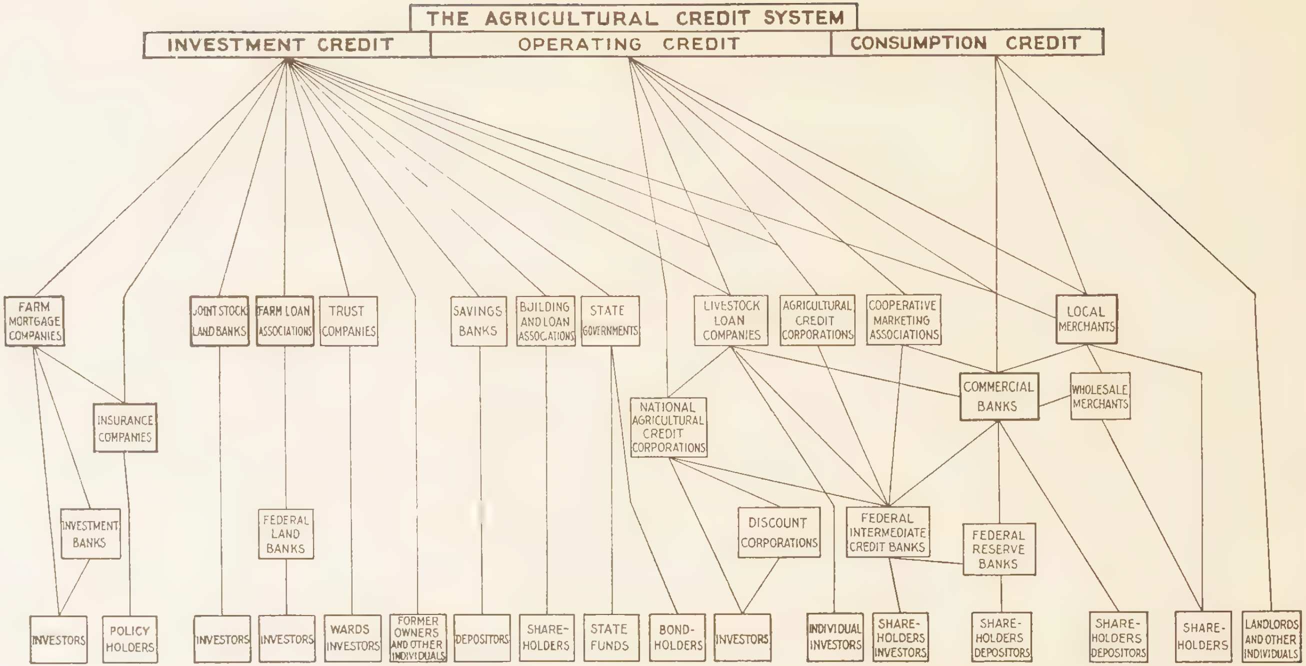

FIG. 3.—The agricultural-credit system. This chart illustrates the flow of credit from the investor to the farmer.

livestock loan companies, and agricultural-credit corporations is likely to increase. The new federal farm-loan system, including the intermediate-credit institutions, is developing rapidly and will absorb a very considerable percentage of the farm-credit business within the next few decades.

The diagram has certain important limitations. In the first place, it should be emphasized that no financial institution limits its loans strictly to any one purpose. Prof. H. G. Moulton has well described the recent tendencies toward "department-store banking,"[1] whereby commercial banks, for instance, maintain bond and savings departments and render various other services not formerly rendered by commercial banks. Yet there are a group of banks which lend funds primarily for investment purposes and another group which lend primarily for operating purposes. Thus, farm-mortgage banks lend primarily for the purpose of buying investment capital, while commercial banks serving farmers are primarily interested in supplying their operating credit needs. Certain credit merchants, such as grocery and dry-goods merchants, supply consumption credit, while others, such as hardware and implement merchants, supply investment credit.

In the second place, certain sources of credit, such as credit unions, cooperative banks, and manufacturing concerns, are not included in the diagram. In certain communities of North Carolina and New York, credit unions are an important source of credit for farmers. Fertilizer manufacturing concerns supply a considerable volume of farm credit in some sections of the country, particularly in the South Atlantic states. But these are relatively insignificant sources of farm credit when the whole country is considered.

Questions and Problems

1. Explain briefly how bankers establish connections with investors, on the one hand, and borrowers, on the other.

2. Why were the earlier banking systems adapted primarily to the needs of merchants and manufacturers rather than farmers?

3. Explain the agitation during the last few decades for more adequate banking facilities for farmers.

4. Summarize the chief weaknesses of the old national banking system in supplying the short-term credit needs of farmers.

5. Show how the Federal Reserve Act, with its amendments, has improved the efficiency of commercial banks in supplying credit to farmers

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[1] Moulton, H. G., "The Financial Organization of Society," Chap. 29.

(1) by reducing reserves, (2) by increasing the flexibility of the currency supply, and (3) by improving the discount market.

6. Should state banks be compelled to join the federal reserve system?
7. Trace the development of the farm-mortgage companies up to 1916.
8. What are the chief purposes for which the federal farm-loan system was established?
9. What are the essential differences between the cattle loan company and the commercial bank?
10. Describe the basic causes for the establishment of the federal intermediate-credit system?
11. How do you account for the fact that banks are gradually supplanting merchants in supplying farm credit?
12. Figure 3 indicates that farmers obtain a large share of their credit through indirect means. In some cases credit passes through three or four financial institutions before it reaches the farmer. Since each bank must have its commission or margin of profit, it seems that the system is top heavy with banks and banking systems. Discuss.

References for Further Reading

BENNER, CLAUDE L., "The Federal Intermediate Credit System," Chaps. 1 to 5.

ELIOT, CLARA, "The Farmer's Campaign for Credit," Chaps. 3 and 7 to 9.

HERRICK, M. T., "Rural Credits," Chaps. 5 to 8, 12 and 13, and 20 to 24.

HERRICK, M. T., and R. INGALLS, "How to Finance the Farmer," Chaps. 1 and 2.

LARMER, F. M., "Financing the Livestock Industry," Chaps. 2 and 5.

MORMAN, J. B., "Farm Credits in the United States and Canada," Chap. 11.

MOULTON, H. G., "The Financial Organization of Society," 2nd ed., Chaps. 11 and 26, or 1st ed., Chaps. 11 and 27.

WRIGHT, IVAN, "Bank Credit and Agriculture," Chaps. 3 to 5, 10 and 11, and 19 and 20; "Farm-mortgage Financing," Chap. 3.

CHAPTER XII

THE COMMERCIAL BANK AND FARM LOANS

The purpose of this chapter is to explain some of the more important policies of commercial bankers who serve farming communities. Why, for instance, does the local banker prefer to extend a loan for only a few months, while insurance companies and farm-mortgage banks prefer to lend for several years? Why does the banker insist on promptness on the part of borrowers? Why are loans sometimes refused in spite of the fact that the applicant has excellent credit standing? What determines the lending power of the bank? What determines the interest rates charged? These and many other questions often arise in the minds of borrowers who are not familiar with the principles governing the banking business.

Banking is indeed much more difficult to understand than are most other types of business. The banker deals in intangibles. To laymen who are thoroughly ignorant on banking practice, banking appears to be merely a matter of money-changing; to the slightly informed, who realize that the handling of actual paper money and coin is only a small part of the banker's business, banking is a mystery; and even to those considered well-informed, banking is often puzzling. The fact that banking has not been understood more generally seems to be due in part to the complexity of the business and in part to the complicated explanations made by writers on the subject.

Space here permits only a brief description of the factors controlling the country banker in the extension of loans. Bankers have other functions, such as providing a safe depository, facilitating exchange, and issuing bank notes, but the lending function is of primary importance here. If the factors controlling the banker's decisions in making loans can be clearly understood, the questions suggested above can be answered with little difficulty.

LENDING POWER OF COMMERCIAL BANKS

It should be remembered at the outset that a large percentage of the loanable purchasing power of all banking institutions is obtained from outside sources: depositors, or investors. Herein lies the fundamental explanation of the lending policies of bankers. The conditions under which the bank gets its lending power largely determines the conditions under which it can make loans. On the basis of the source of lending power, all banks may be classified broadly as deposit banks and non-deposit banks. The former type of bank accepts deposits and adjusts its loans to the requirements of depositors, while the latter type of bank finds prospective borrowers and locates investors who are willing to comply with their requirements.

1. Sources of Lending Power

The lending power of the commercial bank is derived from two sources: (1) the permanent investment of the owners or proprietors of the business in the form of capital, surplus, and undivided profits, and (2) funds obtained from depositors and other creditors.[1] The permanent investment, or "proprietary interest," arises when capital is paid in and when earnings are accumulated and left in the business as surplus[2] and undivided profits. The larger portion of the total lending power of the typical commercial bank is, however, supplied from the outside, in the form of deposits and funds borrowed from correspondent banks and from the reserve bank.

Proprietary Interest.—The capital, surplus, and undivided profits of the bank are the great bulwark of safety to depositors, since by law the bank is liable to depositors for the full amount of its capital (usually double), surplus, and undivided profits. But the proprietary interest represents only a small percentage of the bank's lending power. The financial statement of the typical small-town bank will ordinarily reveal loans and discounts equal to four to eight times as much as the amount of its total capital, surplus, and undivided profits. Thus the total loans and discounts of the Spur National Bank, Spur, Tex., on Sept.

[1] The note issues of the bank are not included as a source of lending power for the simple reason that in obtaining the privilege to issue notes the bank is compelled to invest an amount in government bonds which is approximately equal to the note issue. The net result is that the note issue gives the bank power to lend to the government. The lending power of the bank in its community is not greatly affected one way or the other.

[2] Surplus is sometimes created by the owners of the bank by actually subscribing to a surplus fund, but it arises more commonly from the accumulated earnings of the bank.

28, 1925, amounted to approximately $600,000, while the total proprietary interest of the bank was only about $140,000. It cannot be assumed that the full $140,000 can be lent, or used as a basis for loans. A considerable share of this must be invested in the bank building, furniture, and fixtures. In the case of this particular bank, approximately $24,000, or more than 15 per cent of the total was so invested.[1] This leaves only $116,000 which can be used as a basis for loans.

Outside Funds. *Borrowed Funds.*—It is obvious that $116,000 is an inadequate amount from which to make loans of $600,000. The Spur National Bank not only had loans of this amount on the date referred to above, but it had about $54,000 in cash. The financial statement shows that $145,000 had been obtained from other banks: $45,000 in "notes and bills" rediscounted with the federal reserve bank, and $100,000 in "bills payable." Thus this bank had borrowed an amount greater than its total proprietary interest.[2] But the total of the borrowed funds and the proprietary interest of the bank was only $261,000. A large share of this bank's lending power had been obtained from depositors.

Deposits.—The total deposits of the Spur National Bank on Sept. 28, 1925, amounted to approximately $420,000. Then the total of deposits, borrowed funds, and proprietary interest, less the investment in the banking house and equipment, is well above the total amount of loans. But not all of the $420,000 of deposits can be used for loans, since a cash reserve must be kept as a safeguard for depositors. If the 7 per cent reserve which must be kept with the federal reserve bank is deducted, there remains $390,600 for loans. But the bank must keep some cash to meet the daily cash demands of depositors. The amount kept varies according to the cash demands of customers, the conservatism of the banker, and the banker's opportunities for making loans and investments. In the above example, the bank had $54,000, or about 13 per cent of the total deposits. This is unusually high. The average cash holdings of all national banks for the year 1920 amounted to only 5 per cent of their deposits.[1] If we assume that 5 per cent is sufficient for the average country bank and deduct this amount from the $390,000, there remains $369,600, or 88 per cent of total deposits, for loans. This, plus the $261,000 of borrowed funds and proprietary investment of the stockholders, gives the bank a total of $630,600 for loans.

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[1] Members of the federal reserve system which are designated as "country banks" invest an average of approximately 15 per cent of their capital, surplus, and undivided profits in the banking house, furniture, and fixtures. See Federal Reserve Board, *Ann. Repts.*, 1923 and 1924, pp. 187 and 127, respectively.

[2] This figure is considerably higher than the average borrowings of the country banks of the federal reserve system. Thus the two items, "bills payable" and "notes and bills rediscounted," for all of the country member banks averaged $335,124,000 for the nine reports from Dec. 29, 1922, to Dec. 31, 1924, while the total proprietary interest of these banks was $1,851,645,000. See Federal Reserve Board, *Ann. Repts.*, 1923 and 1924.

2. Increasing Lending Power

Deposits and Lending Power.—The lending power of a deposit bank can be increased only by increasing the bank's own investment, by borrowing from other banks, by decreasing the cash reserve, or by increasing its deposits. The proprietary interest is commonly increased by creating a surplus from earnings or by leaving earnings in the business in the form of undivided profits, although the surplus is sometimes increased by outright subscriptions from stockholders. The cash reserve requirements of the bank are relatively fixed. Banking laws specify a minimum reserve, while the amount of cash held above the minimum is flexible within narrow limits. The bank may borrow from the federal reserve bank or other banks by rediscounting notes and bills or by direct borrowing.

The banker has two distinct methods of increasing his lending power through deposits: (1) by increasing primary or "outside" deposits, and (2) by inducing borrowers to leave a larger percentage of their loans on deposit with the bank.[2] Outside deposits consist of all deposits and all checks and other credit instruments which can readily be reduced to cash provided they are drawn on other banks.[3] The volume of such deposits is greatly affected by the varying financial condition of the bank's customers. In most agricultural communities such deposits fluctuate according to the season. Deposits are highest at the end of the marketing season and lowest just prior to the marketing season. The banker can increase his volume of outside deposits chiefly by acquiring new customers and by inducing his customers to make larger deposits by offering interest on savings or regular deposit accounts.

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[1] Comptroller of the Currency, *Ann. Rept.*, 1920, Vol. I, p. 115.

[2] See Phillips, C. A., "Bank Credit," Chap. 3. Professor Phillips classifies deposits as primary and derivative. In his derivative deposits, however, are included not only that part of the loan which is left with the bank but also the deposits which are made just prior to the maturity of the loan for the purpose of liquidating the loan.

[3] It should be observed that the deposit of checks or other credit instruments drawn on the bank in question would have no effect on the total deposits of the bank, since it would only mean a transfer from one account to another.

It is obvious that outside deposits can be used as a basis for more loans if borrowers withdraw a smaller percentage of their loans. The borrower ordinarily leaves a part, or all, of the loan with the bank in the form of deposits. As time passes, checks are drawn to take all or most of the deposit. Among farmers' banks there is probably an average of 3 to 10 per cent of the loan left on deposit throughout the period of the loan.[1]

If we assume that a bank requires a cash reserve of 10 per cent of all deposits and that borrowers leave an average of 10 per cent of them on deposit, the banker may safely make loans of about $99,000 upon the receipt of $100,000 of outside deposits. The process may be described as follows: (1) $100,000 deposited with the bank; (2) $99,000 lent to customers; (3) borrowers leave $9,900 on deposit; (4) total deposit now increased to $109,900; (5) cash reserve required is $10,990; (6) the $1,000 of original deposit plus $9,900 left by borrowers is $10,900 or $90 less than the cash reserve required for the $109,900 of deposits. That is, when the reserve-deposit ratio is the same as the deposit-loan ratio, the receipt of outside deposits gives the banker power to lend an amount approximately equal to the original deposits. If the cash-reserve requirement is increased, the lending power of outside deposits is decreased accordingly; likewise, if the percentage of loans left on deposit is decreased, the lending power of outside deposits is decreased.

It should be mentioned here that some of the deposits resulting from loans will be transferred to other customers of the bank and will have the same effect on lending power as if borrowers left it on their own accounts. But a very large share of the checks drawn by the borrower will go to deposit accounts of other banks and of course will not increase the lending power of the bank in question. Moreover, some of the deposits which do come back to the bank in question will be used to pay off loans of other customers. If such deposits are used to pay off other loans, the bank's total lending power is not increased, since one loan simply replaces another. The net amount of deposits resulting directly from loans which come back to the bank and supply additional lending power is estimated to be very small.[1]

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[1] Phillips has collected estimates from a number of bankers which indicate that deposits arising as the result of loans of the bank amount to an average of 5 to 20 per cent of the loans. The estimate here of 3 to 10 per cent does not include deposits accumulated for the liquidation of loans. Moreover, Professor Phillips' estimate applies to all commercial banks; whereas, farm borrowers commonly withdraw a larger percentage of their loans than do merchants, manufacturers, etc. See Phillips, "Bank Credit," Chap. 3.

Proprietary Interest and Borrowed Funds.—It was observed above that if the reserve-deposit ratio is 10 per cent and borrowers leave 10 per cent of their loans with the bank, lending power is increased about $99,000 for each $100,000 of primary deposits received. But if $100,000 is added to proprietary interest, the lending power of the bank is increased by about $109,000, since no cash reserve is required for capital, surplus, and undivided profits. Likewise, if the bank borrows $100,000 from other banks it may be able to make additional loans of more than $100,000. But in the latter case the average amount which can be kept in loans will ordinarily be less than $109,000, since the banker finds it necessary to accumulate funds with which to pay his creditor-bank at the maturity of the loan.

3. Summary

The lending power of a commercial bank depends, in the first place, on the amount of its capital, surplus, and undivided profits, after deducting the necessary outlay for buildings and equipment; second, on the ability of the banker to acquire outside deposits; third, on the ability of the banker to obtain loans from other banks; fourth, on the reserve-deposit ratio; and fifth, on the percentage of loans left on deposit or returned to the bank in the form of deposits.

LENDING POLICIES OF COMMERCIAL BANKS

From the foregoing it is evident that the conditions under which depositors leave funds with the bank determine largely the loan policies which the banker is compelled to pursue. The responsibility to depositors is effective in determining the term for which loans can be made, the distribution of loan maturities, the conservatism which the banker must use in placing loans, and the interest rate charged on loans.

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[1] *Ibid.*

1. The Term and Maturity of Loans

Short-term Loans. Since deposits are left with the bank for only a short period of time, the loans arising from deposits must be made for short terms, and investments in bonds, stocks, and mortgages must be readily marketable. In the case of "demand" deposits the depositor retains the privilege of writing checks or withdrawing cash at any time, while in the case of "time" deposits the funds may be withdrawn at the end of a specified period, or upon due notice as the case may be. By far the most common form of deposit is that calling for payment "on demand." Whether "demand" or "time" deposits, they may be withdrawn within a relatively short period of time. The exact period of time for which deposits are left with the bank or, more accurately, the rate of withdrawal of deposits, depends upon the circumstances of individual depositors and cannot be determined in advance. Banking experience, however, has supplied the basis for a fairly accurate estimate of the average rate of withdrawal. On the basis of this experience, commercial bankers have long held that 30, 60, and 90 days are the most desirable periods for loans.

Suppose a commercial banker who has demand deposits amounting to $100,000 decides to invest $50,000 in 10-year farm mortgages for which there is not a ready market. Although the mortgage may be "as good as gold," the banker is following a dangerous policy. Undoubtedly, the depositors will wish to withdraw their funds before the mortgages mature. Many bankers have become insolvent with their vaults well supplied with notes or mortgages "as good as gold." If the depositor had desired to invest his funds for 10 years, he could have purchased a mortgage in the beginning. But the purpose of the demand deposit is to maintain a supply of purchasing power which can be used on a moment's notice. The banker must be prepared at all times to supply this purchasing power.

Yet, as a matter of fact, commercial bankers do invest in farm mortgages and other long-term securities. The commercial banks of the United States had considerably more than $1,000,000,000 outstanding in farm mortgages in 1920, according to an estimate made by the Department of Agriculture.[1] Almost without exception the financial statements of commercial banks indicate some investment in real-estate mortgages, or other long-term securities, such as industrial and government bonds.[2] How can the bank meet its deposit liabilities under such conditions? Presumably investments in long-term securities are made from the capital, surplus, and undivided profits of the bank. Such investments serve as a kind of permanent safety fund for depositors to be liquidated and used to pay depositors only in great emergencies.

When commercial banks invest in long-term securities, sound banking policy requires that investments be selected which are readily marketable, so that they may be reduced to cash on short notice. It was for this reason, in part at least, that national banks were originally prohibited from investing in farm mortgages. Since the passage of the Federal Reserve Act, however, national banks are permitted to make loans on farm mortgages amounting to a maximum total of one-fourth of their capital and surplus or one-third of their time deposits. State banks in most states have long been permitted to make farm-mortgage loans in limited amounts. Both state and national banks can make a limited amount of farm-mortgage loans with greater safety than they could before the passage of the Federal Reserve Act, for two reasons: (1) commercial banks can more easily replenish their vaults with ready cash now because of the discount market created by the federal reserve banks, and (2) there is a better market for farm mortgages.

It was indicated above that the most desirable terms for loans of commercial banks have been placed by commercial bankers at 30, 60, and 90 days. The history of deposit banking shows, however, that the 30-, 60-, and 90-day periods are more or less arbitrary. The banker has probably arrived at the conclusion that these periods are most desirable partly because merchants and manufacturers normally require operating credit for only one, two, or three months. Since a large percentage of the operating loans to farmers is needed for four, five, and six months, or longer, it may be concluded that deposit banks are not well adapted to supplying operating credit to farmers. No convincing analysis has been made, however, which shows that four-, five-, and six-month loans are not well adapted to deposit banking. It has been demonstrated that deposit banks were not well adapted to supplying farm loans prior to the creation of the federal reserve system, but it does not follow that the lack of adjustment was due to the longer term of farm loans. Indeed, a study of the local banker's problems seems to indicate that the chief difficulty was the poor adjustment of loan maturities to the requirements of the bank's depositors, due to the seasonal nature of farm loans. Thus, farmers borrow heavily during the planting and producing period of the year and liquidate their loans during the harvest season. Unfortunately for the country banker, the demands of depositors are ordinarily greatest just when loans are heaviest, and least during the fall when notes are being paid off. Thus, the banker experiences a dearth of ready funds during the season following heavy loans and a surplus of funds following the farmer's liquidation season. This situation has been particularly acute in the one-crop farming sections, as would be expected. What the banker really desires is greater regularity of loan maturities throughout the year or, in other words, a better adjustment of loan maturities to deposit withdrawals.

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[1] U. S. Dept. Agr., *Bull.* 1047.

[2] W. F. Mitchell, in "The Uses of Bank Funds" advances the so-called "shiftability" theory of maintaining liquid assets. He indicates that commercial banks can with safety invest a large percentage of their funds in long-term investments provided they are readily marketable.

The Distribution of Loan Maturities.—The distribution of loan maturities is quite as significant as the term of loans. Thus, if the banker should go so far as to restrict all loans to 30-day terms and yet make all loans to mature on the same date, the problem of meeting the daily demands of depositors would be unsolved. Moreover, an equal distribution of maturities does not suffice. The banker must anticipate a season of heavy deposit withdrawals and scanty inflow of new deposits and adjust his loans to mature accordingly.

Bankers use three methods of maintaining the desired volume and regularity of flow of loan maturities: (1) by regulating the amount of loans made in any one day or any month, (2) by varying the length of the term of loans, and (3) by restricting the size of individual loans. Thus, if all loans are made for three-month terms and the amount of loans made each day or each month is regulated, the result will evidently be a similar return flow of loan maturities. The same result may be obtained, however, without maintaining inflexible rules for the amount of loans made in any day or any month by varying the length of the term of loans. Thus, any banker usually prefers to have a part of his loans in 30-day paper, a part in 60-day paper, etc. The third method of obtaining a desirable adjustment of loan maturities is that of restricting the size of individual loans. An extreme example will illustrate this point. Suppose the banker were to place all his lending power in three big loans to mature in three months. The best possible maturity distribution would be one loan each month, which obviously would not be adapted to the daily requirements of depositors. The proper degree of regularity of maturities can be achieved only by having a large number of smaller loans.

It is often said that commercial banks are adapted only to making short-term loans. The above discussion indicates that with a proper distribution of the maturities of his loans the banker is prepared at all times to meet his deposit liabilities. What then is the relation between short-term loans and the proper distribution of loan maturities? Would it not be possible for the banker to make his loans for 10-year periods, provided they were made to mature at regular intervals? The difficulty here is that the inflow of loan maturities would be entirely too slow to supply the needs of depositors. For illustration, suppose all loans are made to mature at equal intervals during a 10-year period. Less than 1 per cent of the total loans of the bank would mature each month. On the other hand, if all loans are made to mature at equal intervals during a 30-day period, more than 3 per cent of the total loans mature each day. The term of loans must be made sufficiently short to permit the desired daily or weekly volume of loan maturities.

Whether the six- or nine-month loans required by farmers can properly be supplied by deposit banks depends, in the first place, on the rate of withdrawal of deposits. The banker who has a large portion of his deposits in time deposits and savings accounts is in position to make loans for longer periods than is the banker whose lending power is based largely on demand deposits. Likewise, the banker whose depositors are in businesses that require a slow withdrawal of deposits can make loans for longer periods. In the second place, the ability of the deposit banker to make six- and nine-month loans needed by farmers depends on the percentage of the bank's total loans which are made for these longer terms. It was observed above that practically every commercial bank has some funds invested in long-term mortgages or bonds, but that no commercial bank can safely invest a very large percentage of its total lending power in long-term securities. The same principle applies to farm-operating loans which are needed for periods longer than the standard terms of 30, 60, and 90 days. If all the banker's loans are made for six- and nine-month periods, he will in all probability find some difficulty in paying depositors; whereas, if a large percentage of his loans are made for shorter periods, he will experience little difficulty. Thus, the banker who deals exclusively with farmers may often find his vaults overloaded with so-called "frozen" security, or "slow" loans. This situation is particularly noticeable among the banks in the cattle-range sections of the country where operating loans are often required for a year or more.

Although the commercial banker may have some difficulty in supplying operating credit to farmers because of the periods for which loans are required, by far the greater difficulty is that of collecting loans through the year. In all probability the length of the term would be little cause for worry if the farmer's income could be distributed through the year and loan maturities could be more accurately adjusted to deposit withdrawals.

2. Interest Rates on Loans

What determines the commercial banker's policy with regard to interest charges? Why are large merchants and speculators in the cities able to obtain short-term loans at 4 or 5 per cent, while the farmers of Texas, Georgia, and Montana commonly pay 8 to 10 per cent, or even more? Is the difference due to the lack of competition among country bankers, the greater risks involved in farm loans, or the inefficiency of country bankers? While these and other fundamental factors must be considered in an adequate analysis of interest rates,[1] the purpose here is to point out certain characteristics which are common in the banking business in a farming community as contrasted with the banking business of the large city.

Small-scale Business.—In the first place, the typical bank of the farming community is a very small-scale business as compared with the city bank. Deposit and loan accounts are small. When it is considered that the expense of administering small deposit accounts is about the same as that of large accounts, it is obvious that the banker realizes less net return on small loans. The process of making and collecting a $100 loan is the same as that for a $10,000 loan. The total deposit and loan business of the bank is insufficient to justify specialization in performing the different functions. The cashier is ordinarily the credit man, the teller, the chief executive and, sometimes, the bookkeeper of the bank. The size of the business does not justify the employment of high-salaried officials.

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[1] See Chap. XV.

Deposit Practices of Customers.—Farmers are proverbially poor depositors and liberal borrowers. The deposit accounts are commonly small in proportion to their loan accounts. Farmers as a class have never become as thoroughly convinced of the advantages of maintaining a checking account as have merchants and other classes of business men. Their purchases are less frequent and they often prefer to make payments in cash. Moreover, the fact that most of the farmer's income is commonly received during one season of the year often results in the withdrawal of his deposits long before the harvest season. This applies particularly to the so-called "one-crop" farmers.

Likewise, the farmer borrower often withdraws the full amount of his loan immediately, whereas it is common for the city borrower to maintain about 20 per cent of his loans on deposit with the bank. The merchant finds it to his advantage to maintain a good-sized checking account from which to make the daily payments required in his operations. The farmer makes payments less frequently and usually waits until the payment is to be made before borrowing. As a matter of fact, most city bankers require the borrower to maintain a minimum of 20 per cent of his loans on deposit at all times.[1] Some country bankers attempt to establish such policy by permitting the farmer borrower to withdraw only a certain percentage of loans each month, but this policy is usually considered a form of discrimination against the borrower and has not been adopted very extensively.

In this connection, it should be observed that customers who maintain good deposit accounts commonly receive better accomodations from the bank. While interest rates are usually the same for all borrowers, the banker will make a special effort to supply loans in the desired amounts and for the desired length of term for the customer who keeps a good balance on deposit with the bank. Since the banker obtains most of his lending power from depositors, it is only normal that borrowers should be served somewhat in proportion to their contribution to deposits. One banker has summed up the situation in the brief advertisement: "Bank with us and you can bank on us."

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[1] See MUNN, GLENN G., "Bank Credit, Principles and Operating Procedure," Chap. 15.

Seasonal Loans.—The fact that farm loans are well concentrated in one season of the year tends to increase the cost of banking. In the first place, the concentration of loans during the producing season often compels the banker to rediscount paper or to obtain direct loans from other banks. Second, the concentration of loan maturities during the harvesting season often leaves the bank with surplus funds which must remain idle or which must be placed outside of the community at a considerable sacrifice in interest rates. The small-town bankers are at a disadvantage as compared with city bankers not only because of the greater seasonal fluctuation of the volume of their loans, but also because of their poorer connections with the great money markets of the country. This latter difficulty is now being rapidly overcome, however, by the wide use of the trade acceptance which supplies a ready investment for the country banker.

Farm Loans Slow.—Farmers have often been accused of being unbusiness-like. While such accusation is not true to the extent that it was formerly, and while it does not apply to all farmers, they are comparatively slow in meeting their bank obligations. This is the case partly because they are not as conveniently located as are merchants, but a far more important cause of delay in paying notes is the uncertainty of timely income from which to pay the loan. This does not mean that the risk in farm loans is greater—rather the uncertainty of payment at a given time is greater. Whether the farmer will be able to pay his loan Sept. 1 depends largely on the weather and other uncontrollable conditions. Likewise, such uncontrollable conditions may prevent payment for another year. Hence, farmers' notes are frequently renewed and extended. Renewals and extensions make additional work for the bank. More important is the fact that the necessity for renewals often places the bank in an embarrassing position in its relation to depositors.

Inadequate Discount Market.—The great majority of small-town banks are not members of the federal reserve system and, therefore, do not have as ready access to the country's loanable funds as do their city neighbor banks. This usually means that such bankers suffer the disadvantages of paying a higher rate for borrowed funds. They reach the great discount markets of the country by the indirect route of a correspondent bank.

SOME GENERAL POLICIES OF COMMERCIAL BANKS

The foregoing discussions of the sources of the commercial banker's lending power and some of his loan policies leads to a consideration of certain other of his practices. What methods are used in securing deposits? Under what conditions does the banker borrow additional funds or rediscount notes with the federal reserve bank? What part does the banker take in programs for improving the methods of farming and the general prosperity of the community? Why is the banker so vitally interested in the farmer's business welfare?

Methods of Obtaining Deposits. In general the banker appeals to the depositor on the basis of the safety offered in the form of a large capital and surplus and a conservative loan policy. Although a statement of the amount of capital and surplus in relation to the total deposits of the bank means very little to the average depositor, this relation is an important indication of the safety of the bank. A conservative loan policy is even more significant, since deposits are the chief basis for loans.

Another inducement to depositors is offered in the form of services and accommodations. Bankers offer their services as advisers on investments and other business transactions. They make collections and deposit them to the account of the customer, and make an effort to supply loans when needed.

A special inducement which is becoming more and more common is that of paying interest on time deposits or savings accounts. The degree of competition for deposits and the possibility of increasing them determine largely whether the banker will offer interest on time deposits. Interest on deposits is seldom paid by banks which have little or no competition. Thus, a very large percentage of the one-bank farming communities of the country have no savings banks. Yet in the eastern and northern sections of the country many farmers' banks in one-bank communities pay interest on deposits. This seems to be due largely to the fact that the banker is forced into the policy by the competition of bankers of the adjoining communities.

The maintenance of small savings accounts is an added expense to the bank and, unless there is a possibility of a considerable increase in total deposits, the payment of interest is unprofitable. Certainly, the banker who can get the deposits without paying interest will not assume the added expense of running savings accounts. The surplus funds to be found in some communities are entirely inadequate to make a savings department profitable. Hence, the banks who maintain savings departments are found largely in the older and richer sections of the country.

Bank Borrowing and Rediscounting.—The ability to borrow from correspondent banks, or to rediscount notes with the federal reserve bank, supplies an element of flexibility which is indispensable to the local banker. Without such interbank borrowing it would be practically impossible for the farmer's bank to meet the seasonal demands of borrowers and depositors. The funds of depositors often prove inadequate during the spring when farmers borrow heavily to finance production, and again in the fall when buyers are financing the marketing of farm products. Likewise, the local banker is often compelled to borrow during the months following the heavy borrowing season in order to maintain an adequate supply of ready funds for his depositors.

But borrowing is desirable only when the funds supplied by depositors are inadequate. A large percentage, if not all, of the small-town banker's deposits are obtained without interest; whereas, interest must be paid for borrowed money. Hence, the banker borrows sparingly. Presumably, little or no profit is made by relending funds obtained from other bankers. This depends of course upon the margin between the rate paid and the rate received, and the cost of making loans. In those sections of the country where farmers pay 6 per cent, or less, there is obviously little direct advantage to be gained by the banker in borrowing from other banks at 4½ to 5 per cent to lend to farmers. On the other hand, bankers in certain sections of the country are able to obtain a margin of 5 or 6 per cent between the borrowing and lending rates. But, regardless of the margin received, the banker restricts his borrowing largely to emergencies. A crop failure or a series of crop failures forces him to borrow. Similarly, the desire to maintain a maximum of loans through all seasons of the year compels him to borrow occasionally to replenish his supply of cash.

Most interbank borrowing is done on the general credit of the borrower or by pledging collateral security. There is little connection between the process of lending to customers and borrowing from a correspondent bank, except that the credit of the borrowing bank is based largely on the conservatism of its general loan policy. But in the case of rediscounting, the federal reserve bank of course actually takes over the notes of the farmers and other customers of the member bank. Being located at great distances from the member banks and knowing nothing of the personal credit of borrowers, the federal reserve banks follow the policy of requiring a detailed financial statement of the business of all borrowers whose notes are rediscounted.[1] Although this policy is interpreted by many farmers as an unnecessary amount of red tape, it is essential if the rediscounting functions of the reserve banks are to be performed on a sound business basis. As a matter of fact, the local banks are often handicapped in their use of the federal reserve banks because of the inability of farmer borrowers to supply adequate statements of their business. Although the federal reserve banks are permitted by special provisions of the Federal Reserve Act and its amendments to rediscount "agricultural paper" for a maximum period of nine months, the local banker is often limited to the use of commercial paper because of the farmer's inability to supply the required financial statement.

Improving Farming Methods.—The country banker is proverbially looked upon by the community as a leader and adviser in all lines of business. He urges diversification in the one-crop farming community, the substitution of pure-bred livestock for scrubs, the proper care of soils, and the proper upkeep of the farm. He is usually the leader in programs for better farming methods in general. His business training and his personal knowledge of the financial affairs of the community are doubtless important bases for his leadership, but a more accurate explanation of his policy in improving business conditions is the direct dependence of his business upon the prosperity of his customers.

Prosperous Customers.—The time-worn statement that "prosperous customers make a prosperous business" is peculiarly applicable to the banking business. To say the least, bankers are usually the first to realize the significance of this fact. In general, depositors supply lending power in direct proportion to their prosperity and hence any program which tends to stabilize and maintain the income of farmers usually has the active support of the banker. In fact, he commonly initiates programs for better cropping systems, better quality of crops and livestock, and better business methods in general.

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[1] See Chap. VIII.

Contrary to popular opinion, an increase in the prosperity of a community tends to increase the loans of the bank. It would seem on first thought that prosperity would tend to eliminate the necessity for borrowing. But the prosperity of certain farmers induces others to follow a liberal borrowing policy. A good return on the farm investment naturally leads to a policy of increasing the investment, and this is commonly done in part, or wholly, by borrowing. For illustration, suppose Farmer A demonstrates the profitableness of substituting pure-bred cattle for scrubs. Farmer B observes the results and calls on the banker to assist him in obtaining a pure-bred herd. Again Farmer A becomes convinced that "quality production" pays, and immediately begins to apply the same principle in crop production, in the type of machinery used, and in the type of farm buildings. Farmer B concludes that such policies are good and borrows funds from his banker to buy better seed and to improve his farm. Likewise, when the profitableness of the use of commercial fertilizer is demonstrated in a given community, farmers feel safe in borrowing funds to invest in fertilizer.

Diversification of Farm Production.—Why do the more progressive bankers in the one-crop sections of the country urge diversified production among their farmer customers? The arguments used to induce farmers to diversify may be summed up as follows: (1) diversification minimizes the risk of failure and tends to stabilize the farmer's income from year to year; and, (2) diversification helps to maintain soil fertility and, therefore, to prolong the prosperity of the community. From the specific point of view of the banking business, diversification is urged in order to reduce the risk of loans. It is interesting to note here that in 1916 when the boundaries of the twelve federal land bank districts were determined, special effort was made to include a diversified farming area in each district. The reason given for this policy was that such division would increase the salability of federal land bank bonds.

Another factor which has an important bearing on the attitude of the wise banker toward diversified farming is the better adjustment of loan maturities to deposit withdrawals. The necessity of more or less regular loan maturities in deposit banking was discussed above. Diversification tends to distribute the farmer's income more equally through the year and hence to make possible the collection of loans during the spring and summer months, as well as the regular crop-marketing season.

Other examples and illustrations could be given to show why the progressive country banker is vitally interested in improving the farming methods of his community, but these should be adequate. It is not surprising that the nation-wide organization of commercial bankers, known as the American Bankers' Association, has established agricultural committees in all sections of the country for the purpose of studying the farmer's problems and making suggestions for improvement. The essence of successful commercial banking is the maintenance of a maximum flow of deposits and the placing of safe loans whose terms and maturities are adjusted to the demands of depositors. Hence, the wise banker recognizes that the profits of his business depend directly upon the proper economic development of the community. Sound farming practices increase the volume and safety of his business.

Questions and Problems

1. Do commercial banks create lending power?
2. What are the functions of the proprietary interest in a commercial bank?
3. If commercial banks would increase their capital, they could probably dispense with interbank borrowing. Discuss.
4. Distinguish between primary deposits and deposits created through the extension of loans. Does the latter type of deposits increase the lending power of the bank? Explain.
5. Assuming the following figures, estimate the bank's approximate lending power without borrowing:

Country bank, member federal reserve system:

Capital, surplus and undivided profits	$120,000
Buildings, fixtures, etc.	$50,000
Primary deposits	$1,000,000
Loan-deposit ratio	10 to 1
Bank notes in circulation	$25,000

Maintains cash items (including cash in vault and accounts due from other banks) amounting to 10 per cent of all deposits.

6. About what would this bank's lending power be if borrowers left an average of 20 per cent instead of 10 per cent of their loans on deposit?

7. Criticize the statement that the deposit bank is not adapted to making loans for terms of six months to one or two years.

8. Is there any relation between diversified farming and the length of term the deposit banker can safely make loans?

9. Discuss the more important factors which tend to make interest rates higher in farming communities than in the large cities.

10. Explain the low percentage of savings departments among farmers' banks.

11. Why are progressive country bankers particularly interested in improving farming methods?

References for Further Reading

Dewey, D. R., and M. J. Shugrue, "Banking and Credit," Chaps. 10 and 11.

Mitchell, Waldo F., "The Uses of Bank Funds," Chaps. 1, 2, and 4.

Moulton, H. G., "The Financial Organization of Society," 2nd ed., Chap. 18, or 1st ed., Chap. 19.

Munn, Glenn G., "Bank Credit, Principles and Operating Procedure," Chaps. 15 to 16.

Phillips, C. A., "Bank Credit," Chaps. 2 to 4.

Schwulst, E. B., "Extension of Bank Credit," Chap. 10.

Scott, W. A., "Money and Banking," 6th ed., Chap. 8.

CHAPTER XIII

FARM-MORTGAGE BANKS

Farm-mortgage banks include the federal and joint stock land banks and the so-called "farm-mortgage companies." They supply farmers with long-term loans. Their lending power is obtained from owners of surplus funds who desire to make investments rather than deposits. The fact that these banks make loans for the longer periods, and consequently seek funds from more permanent investors, distinguishes them from the ordinary commercial bank.

Mortgage Security. As their name indicates, mortgage banks invariably require a mortgage on specific property of the borrower, whereas, commercial banks are satisfied with a personal note in most cases. The universal practice of taking a mortgage is due, in the first place, to the fact that loans are made for a long period of time. The personal note is obviously inadequate for a 10- or 20-year loan. The risk is too great. The earning ability of the borrower over a period of 10 or 20 years is subject to too many uncertainties. The banker must have more tangible security if he is to be able to meet the inevitable payments due to investors.

In the second place, personal security is impracticable because the banker is seldom acquainted with the borrower. Farm-mortgage banks usually operate over a territory covering one, two, or more states and personal connections with individual borrowers are impossible. The local commercial banker may well afford to accept personal notes on the basis of his knowledge of the character and earning ability of borrowers, but the mortgage banker knows little of the character and history of his customers.

In the third place, long-term loans are used to buy property which automatically becomes available as security. If the borrower buys land, buildings, equipment, or livestock, the common practice is to mortgage the property to secure the loan. But if the borrower buys seed and feed, or uses the funds to hire labor, no tangible security is created.

Determining Credit Risks.—The farm-mortgage banker spends a large part of his time and energy in analyzing the credit risks of applicants for loans. This problem is complicated by the fact that (1) applicants are located at great distances from the bank, (2) the loan runs for a long period of time and earnings must be estimated for a period of years, (3) analysis of property values must be made, (4) the title to mortgaged property must be investigated and approved. The commercial banker, on the other hand, lives among his borrowers and knows them personally. He makes loans for short terms based on estimates of earnings for the current year only. Moreover, he has little to do with appraising property values or clearing titles to land.

Maintaining Security.—The mortgage banker not only has a difficult problem of determining the value of his security, but he must prevent serious deterioration of the mortgaged property during the period of the mortgage. It is not sufficient to take the mortgage and await the payment of the loan. The property may fall into the hands of the state because of back taxes, the soil may be ruined by a poor cropping system, and the buildings may be lost by fire or tornado. The banker must keep close watch on his security throughout the period of the loan. The wide distribution of his customers makes the periodical property inspection a considerable task for the banker or his agents.

Absence of Checking Accounts.—A large share of the time of the clerical force of a commercial bank is occupied in keeping checking-account records, whereas, the mortgage banker runs no checking accounts. He handles investments instead of deposits. Payments are made and received in relatively large sums and only at considerable intervals of time. The accounting system is, therefore, relatively simple and inexpensive.

Certainty of Liabilities.—The mortgage banker knows definitely the amount of the interest and principal which must be paid to investors at any date. He experiences none of the uncertainties of deposit withdrawals. His business is not so directly affected by the temporary financial strains of commercial banking. There is, for instance, no such thing as a "run on the bank." His is a stolid, plodding type of business as compared with the "hair-trigger" business of the deposit banker.

There are, of course, other differences between commercial and farm-mortgage banking, but those outlined above are sufficient to distinguish mortgage banking practices from the more familiar practices of the ordinary local banker. To summarize, mortgage banking is characterized chiefly by (1) the requirement of mortgage security, (2) the wide territorial distribution of customers, (3) the problem of measuring credit risks for many years in advance, (4) the problem of maintaining the value of mortgaged property, (5) the absence of checking accounts, and (6) the definiteness of liablities at all times.

The Business of the Mortgage Bank.—So much for the distinguishing characteristics of the farm-mortgage banking business. The actual day-to-day business of the mortgage bank may be divided into the following functions: (1) making loans; (2) selling bonds or mortgages; (3) maintaining security; (4) collecting payments of interest and principal; and (5) making payments of interest and principal to investors. Incidentally these functions, in the order named, indicate roughly the chronological process of any particular loan from the time it is made to the time it is paid off. This does not mean of course that the borrower must wait until the banker sells his mortgage to get his loan, or that an inspection of the mortgaged property is made before interest and principal payments are received. It does not even mean that interest and principal are always collected from the borrower before the investor is paid. As a matter of fact, the banker often advances payments to investors and collects from borrowers at some later date. Instead of thinking of these functions being performed one after the other in connection with an individual loan, a more realistic picture of farm-mortgage banking can be obtained by thinking of all these functions being performed by the banker on any given day as a kind of cross-section picture of the business. On almost any business day the farm-mortgage banker will be found performing some of the processes of each of these general functions. The work of the larger banks is often divided among two or three distinct departments, such as (1) loan department, (2) bond or investment department, and (3) filing, collecting, and disbursing department.

MAKING LOANS

To the uninitiated, the process of making farm-mortgage loans may seem a simple matter. Loans are made for a long term, and they are secured by farm lands the value of which seems to be determined with little difficulty by asking a few questions. But how does the banker establish connections with borrowers located hundreds of miles from his place of business? Does he maintain an agent in every farming community? Does he make loans directly to the farmer, or through some other financial agency? What is the process of determining whether a loan shall be made and, if a loan is to be made, on what basis does the banker determine the amount to be extended? How is the term of the loan determined, and what are the methods of repayment? Finally, what are the limitations on the total lending power of the bank? The answers to these questions are somewhat different for different mortgage banks. In fact, there are certain rather wide differences in the loan practices of the regular farm-mortgage companies and the banks of the federal farm-loan system. Yet the general principles regulating the extension of loans are the same for all farm-mortgage banks.

Loan Machinery.—The federal and joint stock land banks and the farm-mortgage companies maintain different types of loan organization, or machinery through which loans are made.

The Federal Land Banks.—The twelve federal land banks make loans through national farm loan associations.[1] No loans are made directly to farmers. The associations are organized by a minimum of ten borrowers who desire total loans of at least $20,000. Every borrower automatically becomes a member of the association and is compelled to buy stock in the organization amounting to 5 per cent of his loan. In turn, the association buys an equal amount of stock of the federal land bank of the district in which the association is located. When a farmer of the community applies for a loan, the loan committee or the secretary of the association makes an appraisal of his security and forwards recommendation to the bank. Officials of the bank look over the application and the recommendation of the local committee and detail a special appraiser to make a personal analysis of the applicant's case. With the facts at hand concerning the reputation and earning ability of the borrower and the value of the land to be mortgaged, the executive committee of the bank finally approves, or disapproves, the application. If the application is approved, the loan is extended to the local loan association whose secretary-treasurer pays the borrower.

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[1] Provision is made in the Federal Farm Loan Act for making loans through certain designated agencies, such as local banks, in case no association is available to the borrower. But since associations have been organized extensively, few loans are made through agencies.

Thus the federal land bank supplies mortgage loans through numerous local organizations of farmers. On Dec. 31, 1925, there were 4,657 associations in operation in the United States, or an average of about 400 for each of the twelve land bank districts.[1] Besides the loan machinery supplied by local associations of farmers, each federal land bank maintains a corps of appraisers who are appointed by the Federal Farm Loan Board and designated to the bank.

The Joint Stock Land Banks.[2]—The joint stock land banks make loans directly to farmers, but since each bank may make loans over two states, it is necessary to maintain agents at certain central points over the territory. Usually commercial bankers, insurance agents, or lawyers are selected as local loan agents. The bank's territory is commonly divided into a few larger districts, each of which is placed under the supervision of a special agent. A preliminary appraisal of the credit risk of the prospective borrower is usually made by the local agent, while final appraisal must be made by an appraiser selected by the Federal Farm Loan Board. Final decision on the application is made by the executive committee of the bank.

Farm-mortgage Companies.—The farm-mortgage companies have loan organizations very similar to those of the joint stock land banks: local agents, district agents, and the loan department of the bank. These banks sometimes operate over several states. Several mortgage companies located in such centers as Chicago, St. Louis, and Kansas City make loans throughout most of the Middle West, the Missouri Valley states, and the Southwest. Such territorial expansion makes necessary an extensive staff of local and district agents.

The farm-mortgage companies supply their own appraising force which consists largely of the local and district agents. The common process is as follows: (1) the local agent passes on an application for a loan, (2) the district agent approves or disapproves it, and (3) if it is approved, the loan department or loan officials of the bank accept or reject it.

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[1] Federal Farm Loan Board, *Ann. Rept.*, 1925.

[2] On Dec. 31, 1925, there were 53 joint stock land banks in operation in the United States. At the same date, in 1923, there were 70. The decrease was due in part to the consolidation of two or more banks into one organization and in part to premature organization and lack of business.

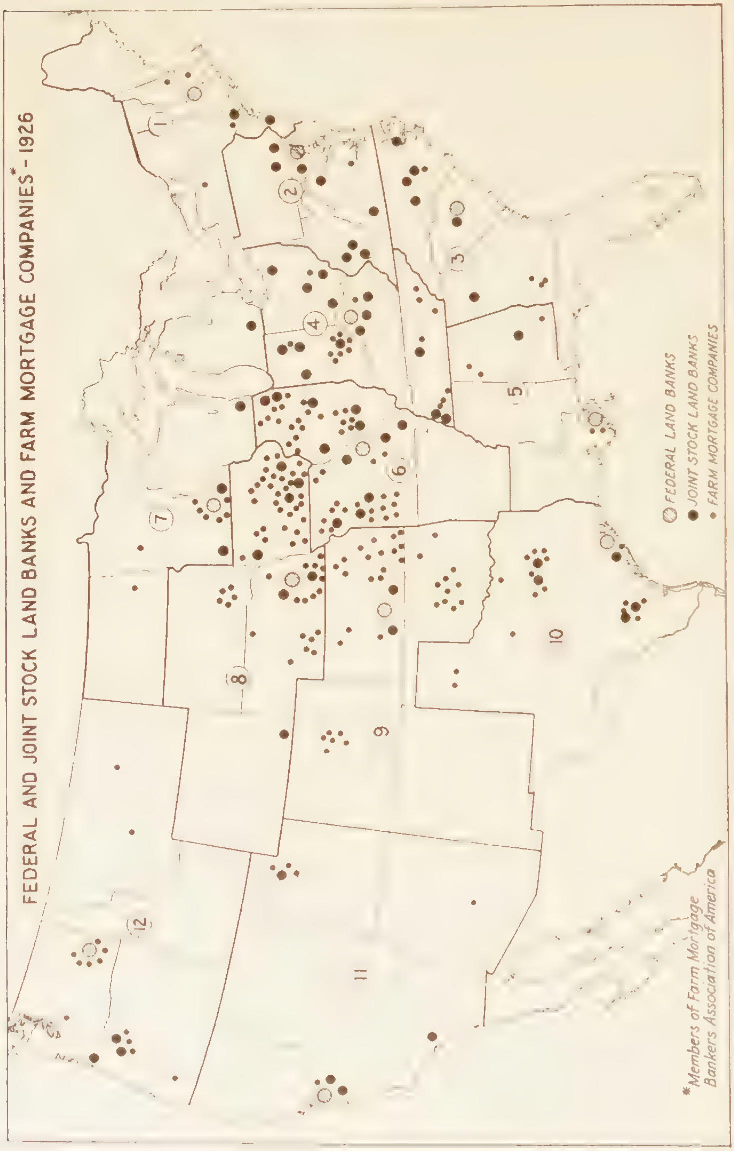
FEDERAL AND JOINT STOCK LAND BANKS AND FARM MORTGAGE COMPANIES* - 1926
○ FEDERAL LAND BANKS
● JOINT STOCK LAND BANKS
• FARM MORTGAGE COMPANIES
*Members of Farm Mortgage Bankers Association of America
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FIG. 4.—Location of federal and joint stock land banks and the farm-mortgage companies which are members of the Farm Mortgage Bankers' Association of America.

Figure 4 indicates the distribution of the three types of farm-mortgage banks and the division of the country into twelve

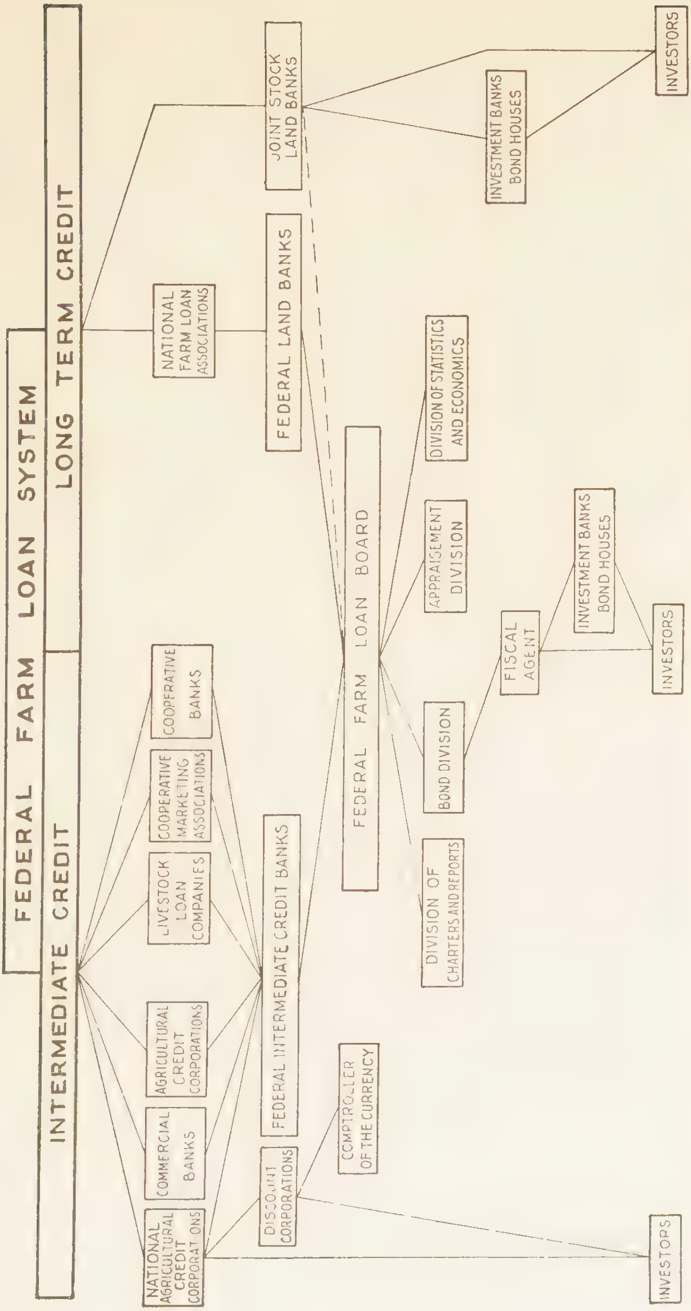
FEDERAL FARM LOAN SYSTEM
INTERMEDIATE CREDIT
LONG TERM CREDIT
NATIONAL AGRICULTURAL CREDIT CORPORATIONS
COMMERCIAL BANKS
AGRICULTURAL CREDIT CORPORATIONS
LIVESTOCK LOAN COMPANIES
COOPERATIVE MARKETING ASSOCIATIONS
COOPERATIVE BANKS
NATIONAL FARM LOAN ASSOCIATIONS
JOINT STOCK LAND BANKS
DISCOUNT CORPORATIONS
FEDERAL INTERMEDIATE CREDIT BANKS
FEDERAL LAND BANKS
COMPTROLLER OF THE CURRENCY
FEDERAL FARM LOAN BOARD
DIVISION OF CHARTERS AND REPORTS
BOND DIVISION
APPRAISEMENT DIVISION
DIVISION OF STATISTICS AND ECONOMICS
FISCAL AGENT
INVESTMENT BANKS BOND HOUSES
INVESTMENT BANKS BOND HOUSES
INVESTORS
INVESTORS
INVESTORS

FIG. 5.—The federal farm-loan system, illustrating the banking machinery through which credit flows from investors to borrowers. The dotted line connecting joint stock banks with the Federal Farm Loan Board indicates that the board has less control of these banks than of the federal land banks.

federal farm-loan districts. It will be observed that a very large percentage of the farm-mortgage banking institutions of the country are located in the Corn Belt states.

Attracting Borrowers.—Farm-mortgage banks establish connections with borrowers by advertisements, the personal solicitation of agents, and the recommendation of the local banker. Frequently, the local banker acts as agent for some farm-mortgage bank. He has the advantage of a wide acquaintance in the community and an established business with the prospective farm-mortgage borrowers. Whether or not he acts as an agent, mortgage bankers find his recommendation one of the most effective means of placing loans.

Local newspaper and poster advertisements serve as a supplement to agents in attracting the loan business of the community. The attention of prospective borrowers is called to an attractively low interest rate, a convenient method of repayment of loans, or the liberal ratio of loans to the value of the property mortgaged. Another favorite inducement offered by farm-mortgage agencies is the "easy terms" upon which loans may be obtained. That is, the loan is granted for a long period of years and payments may be made on the installment plan.

Determining Credit Risks.—The loan business centers in the analysis of credit risks. The skill with which the mortgage banker can estimate real-estate values and the earning power and character of the individual borrower very largely determines the success or failure of his business. An inaccurate estimate of the moral character and earning ability of the borrower results in endless trouble with the loan and, probably, foreclosure of the mortgage. An overestimate of the value of the property mortgaged may result ultimately in the loss of part of the loan. The banker who can place loans in such manner that interest and principal payments will be met promptly is well on the road to success in the mortgage banking business.

Formal Application.—The first step in the process of obtaining a loan is the formal application of the borrower. Blanks are supplied by the bank. While the application blanks of farm-mortgage companies and federal and joint stock land banks differ somewhat in form and the amount of information called for, the essential content of all may be outlined as follows: (1) description of the property to be mortgaged; (2) the purpose of the loan; (3) statement of value of the land and improvements to be mortgaged; (4) statement of financial status of applicant; (5) amount and value of products of the farm for one or more years; and (6) certain general information, such as the age and farming experience of the applicant and the general condition of the farm. The application blanks of the federal and joint stock land banks call for several hundred separate items of information, covering three large sheets of paper.

Confidential Report of the Local Agency.—In addition to the information supplied by the borrower, the local agency sends in a confidential report in which estimates of property values, earning power, and the personal character of the borrower are summarized and a loan is recommended for a stated amount. The loan committee or the secretary[1] of the local loan association makes this report for the federal land bank, while designated local agents make such reports for joint stock land banks and farm-mortgage companies. The confidential report of the local agency serves as a check against the report of the applicant. The district agents of the joint stock land banks and farm-mortgage companies usually pass on applications and the reports of local agents before they are turned over to the bank for final decision.

Report of Special Appraisers.—A third report is made by a special appraiser on the basis of a personal investigation. This report is invariably required by federal and joint stock land banks and ordinarily carries more weight with the bank than do the other two reports combined. The appraiser is a specialist and he is familiar with the general conditions of the territory in which he is operating. Presumably at least he is above the bias which may enter into the report of a local agency.

In those communities in which no local agent is maintained, the appraiser's report is substituted. On the other hand, the farm-mortgage companies often accept the report of the local agent and avoid the extra expense of a special appraisal.

Final Decision by the Bank.—Final decision on all loans rests with the loan officials of the bank. On the basis of all the available facts concerning the applicant, the lending experiences of the past, and a general knowledge of the economic conditions of the territory, the banker decides on the amount and conditions of the loan or rejects the application.

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[1] In order to reduce the cost of the preliminary appraisal, Congress passed an amendment to the Federal Farm Loan Act in 1920 permitting the loan committee to designate the secretary-treasurer as the appraiser for the local associations.

In determining credit risks of a particular loan the banker depends on two distinct types of knowledge, *viz:* (1) his knowledge of the general economic conditions of his territory, and (2) the facts supplied by agents and appraisers concerning the specific applicant under consideration. A liberal or a conservative loan policy is already established when the individual application is presented to the banker. He knows from his own past experience whether farming in the section from which the application comes is a stable or uncertain business. From his general knowledge of land values in this section, he realizes whether land is valued rather accurately on the basis of average earnings or whether current prices contain a considerable degree of the speculative element. If land is overvalued, the banker normally discounts the recommendations of appraisers and local agents. Thus the banker may follow the general policy of lending 60 per cent of the value of mortgaged property in one section, while he will lend only 40 per cent in another. Likewise, the conditions under which the loans are made are likely to be different as between a stable farming community and one in which crops are uncertain.

Similarly, the banker is likely to be more conservative at one time than he is at another. His knowledge of the general economic conditions of the country, the general trends of prices of farm products, and the general outlook for agriculture will help to determine his general policy. He must consider whether the prices of the agricultural products of his territory are likely to increase or decrease during the period of his loan, and whether land values are likely to rise or fall.

The final decision of the loan officials upon a loan rests upon the analysis of the character and earning ability of the applicant and the value of the property mortgaged. That is, it must be determined whether this particular applicant will be able and willing to meet the obligations of the loan. Then as a final guarantee of the full repayment of the loan, an estimate must be made of the probable emergency-sale value of the mortgaged property.[1]

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[1] For a more complete discussion of the determination of the credit risk of a specific loan see Chap. IX.

Investigation of Title.—The farm-mortgage banker requires a demonstration of clear title to the property offered as security for a loan. Ordinarily the applicant must send an abstract of title along with his application. Abstracting of the title consists of tracing the history of transfers of the property and writing it up in brief form. The abstract is simply proof of a clear title. The evidence upon which it is based is found in the records of the county in which the property is located. Abstracting is usually done by a local professional abstractor, an attorney, or a guaranty title company. Due to the inefficient system of recording titles and title transfers in most of the states, abstracting is very expensive to borrowers. An investigation in North Carolina indicates that costs vary from $31.60 to $230 per farm.[1]

Before a loan is advanced, the bank requires that its own lawyer make a careful examination of the abstract. This is sometimes called the "determination of title," and a fee is charged for the service. While there are no legal limitations to the charges made by local abstractors, federal and joint stock land banks are prohibited by law from charging more than the actual cost of the service of examining the abstract.

The Term of Loans.—The maximum term of federal and joint stock land bank loans is 40 years, but any borrower has the privilege of paying off his loan at any interest payment date after 5 years.[2] Loans are commonly made for periods of 32 to 36 years. The regular farm-mortgage companies, as well as insurance and trust companies, make loans for considerably shorter periods. The most common terms seem to be 5 and 10 years, although there has been a tendency during recent years to make more loans for 20 years.[3]

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[1] MORMAN, J. B., "Farm Credits in the United States and Canada," p. 129.

[2] The Federal Farm Loan Board has ruled that under certain special circumstances borrowers shall be permitted to pay off loans before the end of 5 years. See Federal Farm Loan Board, *Circ.* 10.

[3] A recent investigation made in Texas indicates that about 47 per cent of the loans of farm-mortgage companies are made for 10 years, 32 per cent for 5 years, 9 per cent for 20 years, 7 per cent for 7 years, and most of the remaining 5 per cent for less than 5 years. The terms of loans of insurance companies were distributed as follows: 49 per cent for 5 years, 41 per cent for 10 years, 4 per cent for 20 years, and the remaining 6 per cent for less than 5 years. See Tex. Agr. Exp. Sta., *Bull.* 330.

The length of the term of farm-mortgage loans is determined by the needs of the borrower, the wishes of investors, custom, and law. From the point of view of the borrower, the term should be sufficiently long to permit repayment from his earnings.[1] The excessive renewals and extensions of loans of mortgage companies in the past indicate that the term has been too short. In spite of the fact that the average term of their loans has probably doubled since 1900, there is still evidence of lack of proper adjustment. Custom has been effective in retaining the 5- and 10-year terms, which in the earlier days of low-priced land and equipment were very satisfactory to borrowers. The ease of selling mortgages of shorter terms has been another important factor in delaying the adjustment to the needs of borrowers. The average investor clearly preferred the shorter term investments, due largely to the lack of a ready market for farm mortgages.

A better adjustment of the term of loans to the needs of borrowers was one of the chief purposes of the Federal Farm Loan Act in creating the federal and joint stock land banks. The long term of 30 to 40 years was arbitrarily set by the law as a maximum. The privilege of either distributing the payments over this long period or paying off the entire loan at any time after 5 years guarantees the desired flexibility of the term. Few borrowers are able to pay off a mortgage in less than 5 years and certainly the maximum term is sufficiently long for any borrower.

The disadvantage which the farm-mortgage companies have experienced in selling long-term mortgages to investors is negligible in the case of the federal and joint stock banks, since the securities of these banks have a wide market. They are standardized and well known. The investor is not very particular about whether they run for 5, 10, 20, or 30 years, since he can sell them with little difficulty at any time. Increased marketability of the securities of farm-mortgage companies, likewise, will tend to eliminate any objections which their investors may have to long-term loans.

Methods of Repayment.—Farmers prefer to pay off loans by installments, while investors commonly prefer payment in lump sum at the end of the term. The banker's problem is to satisfy both. In the earlier stages of the development of farm-mortgage banking in this country the farmer was compelled to meet the terms of the investors to whom the banks sold the mortgages. That is, loans were usually repaid in lump sum. Since it was considerably easier to place loans than it was to sell mortgages, investors were favored at the expense of borrowers.

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[1] See Chap. IV for a discussion of the purposes of investment loans.

Since 1900, however, there has developed a considerable amount of competition for farm mortgages. More bankers and insurance companies have entered the field, and the farm mortgage is more favorably known as an investment. With this development there has been quite naturally a noticeable adjustment in the mortgage banking business to the needs of borrowers. An important phase of this adjustment is that of adapting loan repayments to the income periods of the borrowers, *i.e.*, permitting annual payments. But the regular farm-mortgage companies still make rather extensive use of the lump-sum method of repayment, and among insurance companies this method seems to be even more prevalent. A recent investigation indicates, for instance, that about 40 per cent of the loans of farm-mortgage companies in Texas are repaid in lump sum, while about 45 per cent of the loans of insurance companies are repaid in this manner.[1]

The annual or semi-annual payment method, however, is coming to be used very extensively. All federal and joint stock land banks require annual or semi-annual payments, and the farm-mortgage companies are gradually adopting the plan. There are two rather distinct methods of making payments under the annual payment plan: (1) the proportional method, and (2) the amortization method. Under the proportional method of annual payments the borrower pays an equal amount of the principal each year. For instance, suppose a $10,000 loan is made for a 10-year term. The borrower pays $1,000 on the principal each year. If the interest rate is 5 per cent, his interest bill for the first year is $500, for the second year, $450, for the third year, $400, etc. Thus his total payment of principal and interest for the first year is $1,500, second year, $1,450, third year, $1,400, etc. Under the amortization method the total of the interest and principal payment is the same each year. Interest payments decrease with each year, while payments on the principal of the loan increase each year until the loan is finally liquidated. The essential difference between the proportional payment method and the amortization method is that under the former method the total payments gradually decrease from year to year, while under the latter method the total annual payments remain the same.

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[1] Tex. Agr. Exp. Sta., *Bull.* 330.

Tables I and II illustrate the proportional and amortization methods of payment of a $10,000 loan for 10 years at 5 per cent interest.

TABLE I.—ANNUAL PAYMENTS OF PRINCIPAL AND INTEREST ON THE PROPORTIONAL PLAN

Year	Total payment	Interest	Principal	Unpaid principal
				$10,000
1	$ 1,500	$ 500	$ 1,000	9,000
2	1,450	450	1,000	8,000
3	1,400	400	1,000	7,000
4	1,350	350	1,000	6,000
5	1,300	300	1,000	5,000
6	1,250	250	1,000	4,000
7	1,200	200	1,000	3,000
8	1,150	150	1,000	2,000
9	1,100	100	1,000	1,000
10	1,050	50	1,000	
Total........	$12,750	$2,750	$10,000	

TABLE II.—ANNUAL PAYMENTS OF PRINCIPAL AND INTEREST ON THE AMORTIZATION PLAN

Year	Total payment	Interest	Principal	Unpaid principal
				$10,000.00
1	$ 1,295.05	$ 500.00	$ 795.05	9,204.95
2	1,295.05	460.25	834.80	8,370.15
3	1,295.05	418.51	876.54	7,493.61
4	1,295.05	374.68	920.37	6,573.24
5	1,295.05	328.66	966.39	5,606.85
6	1,295.05	280.34	1,014.71	4,592.14
7	1,295.05	229.61	1,065.44	3,526.70
8	1,295.05	176.33	1,118.72	2,407.98
9	1,295.05	120.40	1,174.65	1,233.33
10	1,295.05	61.67	1,233.33	
Total........	$12,950.50	$2,950.45	$10,000.00	

All federal and joint stock land banks use the amortization method. Farm mortgage companies use both methods, but the proportional-payment method seems to be more common.[1]

There are, of course, certain variations of these methods. The federal and joint stock banks, for instance, permit payment in lump sum after 5 years. Some farm-mortgage companies permit full repayment at any time, while others permit full repayment at any time after a designated period, usually three or five years. Another variation of repayment methods among farm-mortgage companies is the privilege of paying any amount at any time.

Several difficulties have been experienced by farm-mortgage bankers in adjusting loan repayments to the income periods of borrowers. In the first place, installment payments increase the clerical expenses of the bank. Accounts must be kept on principal payments as well as interest payments. In the second place, installment payments make frequent reinvestment necessary. If the banker insists on passing the payments on to the investor, the investment is less attractive. On the other hand, if the banker attempts to maintain the full amount of the investment throughout the period, he must be busy continually in placing new loans to avoid the accumulation of idle funds on which he is paying interest. This means double duty for the banker. Suppose the banker makes a loan of $10,000 to be repaid in lump sum at the end of a 10-year period, and in turn sells the mortgage to an investor. During the full 10-year period the banker's function in regard to the payments consists only in collecting interest and passing it on to the investor. But if the borrower is permitted to make principal payments of $1,000 each year, the average size of the loan for the 10 years is only $5,000. For the banker's business as a whole, this results in the necessity of making just twice as many loans as would be necessary if he required lump-sum payments.

Nevertheless, it is the business of the banker to supply the borrower with the most attractive loans and to sell the most attractive securities to the investor. Increased competition both in the investment market and in the borrowing market is gradually compelling the banker (1) to adjust loan repayments to the convenience of the borrower and (2) to maintain the investment for the investor by relending the installment payments.

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[1] An investigation of loans of farm mortgage companies in Texas in 1924 indicates that about 23 per cent of the loans are repaid under the regular annual payment method, while 15 per cent are repaid under the amortization method.

From the point of view of the borrower, the annual-payment method is much more desirable than the lump-sum method. In the first place, payment under the latter plan involves the difficult process of accumulating savings over a long period of time. Obviously, the borrower is more likely to manage to make a $1,000 payment each year than he is to save $1,000 to pay off a loan which is not due for several years in the future. The annual-payment method serves as a sort of compulsory savings plan. In the second place, even if the borrower does take his obligation of several years hence seriously enough to save a sufficient amount each year, he has the problem of investing his savings. If he uses his savings to reduce the principal of the loan, he reduces his interest bill. This is equivalent to making a safe investment at the rate which he is paying for the mortgage loan. If he does not use his savings to pay off the loan, he will fail almost invariably to find an investment as attractive as that of "killing off" his own mortgage: (1) he may deposit it with his banker at 3 or 4 per cent interest; (2) he may buy government bonds at 4 or 5 per cent; (3) he may invest in speculative securities and lose all or a part of his savings; and (4) in exceptional cases only he may find a safe investment which pays an interest rate equal to the rate he is paying on the mortgage.

It has been assumed above that equal annual payments are adapted to the borrower under all circumstances, but as a matter of fact they are not perfectly adapted to the farmer's paying ability. Farming is proverbially a business of occasional partial or complete failures, and occasional years of great prosperity. To be perfectly adapted to the farmer then, the repayment method should permit the borrower to make advance payments during a period of prosperity. On the basis of the advance payments made, he will be better prepared to survive an occasional failure. Federal and joint stock land banks permit such advance payments after five years. Also, some farm-mortgage companies permit advance payments after a period of three or five years; a few companies permit such payments at any time after the loan is made.

Interest and Other Charges.—The maximum interest rate on loans of the federal and joint stock land banks is set by law at

6 per cent. The actual rate depends chiefly upon the rate these banks must offer on their bonds. The most common rate of interest on federal land bank bonds has been 4½ per cent, and the most common rate of interest charged on loans has been 5½ per cent. Of course bond interest rates vary with the conditions of the investment market and the rate charged on loans must vary somewhat accordingly. The margin taken by the federal land bank varies from one-half to 1 per cent. The most common rate of interest paid on joint stock bank bonds has been 5 per cent, although a large volume of bonds has been sold at 4½ and 4¾ per cent. Their most common rate on loans has been 6 per cent. In the case of either type of bank, the law requires that the rate charged on loans at a given date must not be in excess of 1 per cent above the rate of the last bond issue of the lending bank.

Certain charges are made by federal and joint stock land banks to cover the expenses of appraisal, determination of title, and recording of papers. The law requires in all cases that such charges be limited to the actual cost of these services. The charge is strictly limited to 2 per cent of the amount of the loan in the case of federal land bank loans: 1 per cent each for the local association and the bank. The joint stock land banks may not charge more than enough to cover the actual expenses of appraisal, determination of title, and recording of papers; and it is presumed that these expenses are less, on the average, for joint stock banks than they are for the federal land banks, since the services of the local association tend to increase the cost of the latter.[1]

The interest rates charged by the farm-mortgage companies are commonly from 1 to 2 per cent higher than those of the federal and joint stock banks. That is, the rates of the latter range from 5 to 6 per cent, whereas, the rates for the great majority of the loans of the farm-mortgage companies fall within the limits of 6 to 8 per cent. The explanation of the lower rates of the federal and joint stock banks is based chiefly on the following factors: (1) their large scale of operation; (2) their conservative loan policy; (3) the greater marketability of their securities because of government supervision and standard methods of appraisal of credit risks; and (4) the exemption of their securities from taxation.

[1] See MORMAN, J. B., "Farm Credits in the United States and Canada," p. 122.

The interest rates of farm-mortgage companies vary considerably from one section of the country to another. Thus in certain of the more stable farming communities of the North and Northeast, where there is less difficulty of finding investors and where loans are considered more secure, the rate is often below 6 per cent, while in the less stable farming communities of the South and West the rate is frequently above 8 per cent.

Little information is available on the charges made by farm-mortgage companies for appraisal, determination of title, etc. In the early days of farm-mortgage banking these charges were often exorbitant, but the indications now are that they are being reduced to a reasonable minimum. In fact, there are some indications that charges are less among the mortgage companies than they are among land banks, since the land banks permit the local associations to make a charge for their services.[1]

It should be remembered that the above charges made by the federal and joint stock land banks and by the farm-mortgage companies do not include the cost of abstracting the title. The borrower makes a separate payment for this service to a local abstractor, or attorney. The amount of this expense varies chiefly according to the difficulty of the service and the conscience of the abstractor.

Lending Power of Mortgage Banks. Like commercial banks, farm-mortgage banks obtain their lending power largely from outside sources. Indeed, capital and surplus supply a smaller percentage of the total lending power of mortgage banks than of commercial banks.[2] Moreover, loans made by mortgage banks are immediately withdrawn, while a part of commercial bank loans is usually left on deposit. Mortgage banks, therefore, can make loans just to the extent that they are able to attract the funds of investors.

The ability of the mortgage banker to attract investors depends largely upon the economic conditions of agriculture, the reputation of the banker, and the interest rate he is willing to pay on mortgages or bonds. But the interest rate he can pay depends upon his efficiency and the rate he obtains from the borrower. Then if the farm-mortgage banking system is as efficient in reaching the investors of the country as are the investment banks, or bond houses, it is assured that agriculture will be adequately supplied with investment funds. If farming is prosperous, the safety of farm loans will attract investors. Also, if agriculture is prosperous, farmers will be able to attract their share of the investment funds of the country by offering an attractive interest rate. It would seem then that the economic condition of agriculture would largely determine the lending power of the mortgage banks; but this is true only to the extent that farm-mortgage bankers are efficient and able to compete on an equal basis with investment bankers representing the other industries, such as manufacturing, mining, and merchandising.

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[1] *Ibid.*, Chap. 8.

[2] Federal land banks are permitted by law to issue bonds equal to twenty times the amount of capital stock and joint stock banks may issue bonds equal to fifteen times the amount of their capital stock. Reports from seven of the larger mortgage companies operating in Texas in 1924 indicate that their total capital and surplus is equal to only 2.36 per cent of their total loans. See Tex. Agr. Exp. Sta., *Bull.* 330.

The establishment of the federal farm-loan system in 1916 was prompted by the recognition that the farm-mortgage companies had been unable to open up the credit channels of the country to agricultural borrowers. In the first place, the investment banks or bond houses had the advantage of an earlier start.[1] Second, the business practices of corporations served by these banks were fairly well standardized and their securities were well known to investors; whereas, the business practices of individual farmers were varied and uncertain, and the great majority of the investors of the country knew little or nothing of the farm mortgage as an investment. Third, the farm-mortgage banker had an uphill business in that his loans were made in small amounts over a wide territory. Placing loans of $1,000,000 might involve 500 individual loans of an average of $2,000 each, distributed over a territory of several states, while it was not at all uncommon for the investment banker to place $1,000,000 with one corporation.

Congress attempted to overcome these handicaps to the free flow of investments to agriculture by creating the federal farm-loan system. In the first place, the banks of the system, particularly the federal land banks, were to be operated on a large scale. Second, the farm mortgage was to be made a standard, marketable security by a uniform system of appraising credit risks. Third, the difficulty inherent in the sale of small individual mortgages was to be overcome by collecting a large volume of mortgages and using them as a basis for large bond issues which would appeal to large investors. Fourth, in order to be sure that investors would be attracted, Congress exempted the securities of the banks of the new system from taxation.

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[1] See Chap. XI.

The farm-mortgage companies are rapidly falling in line by operating on a larger scale, by standardizing their appraisal methods, and by establishing more effective connections with the investment markets of the country. Some of these companies are reorganizing as joint stock land banks in order to obtain the advantages of tax exemption and other benefits of the government-supervised banking system. With the establishment of the federal farm loan system and the improvement in the methods of the farm-mortgage companies, agriculture is rapidly being placed on an equal basis with the other industries in competing for the loanable investment funds of the country. The efficiency of the banking system should be such that the farmer can attract loans in proportion to the prosperity of his business.

SELLING BONDS OR MORTGAGES

The second phase of the business of farm-mortgage banks is that of selling securities to investors. This work commonly occupies the time of a separate department of the bank, called the "investment" or "bond department." This department takes the mortgages supplied by the loan department and either sells the mortgages outright, or sells bonds or certificates based on the mortgages.

Organization and Methods.—The sale of all federal land bank bonds is under the supervision of a fiscal agent located in Washington.[1] The issuing banks sell only about 5 per cent of their bonds, while the fiscal agent disposes of the remainder as follows: (1) about 35 per cent is sold through a syndicate of investment bankers or bond houses; (2) about 50 per cent is sold to the United States Government Life Insurance Division of the Treasury Department; and (3) about 10 per cent is sold directly to smaller investors.[2] Ordinarily, group offerings are made by several of the banks of the system. The total amount issued at any one time depends of course upon the needs of the various issuing banks. The average size of the issues during the past few years has been about $20,000,000.

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[1] The fiscal agency was established by the Federal Farm Loan Board in 1923. Prior to this time the board supervised the sale of land bank bonds.

[2] Letter from Charles E. Lobdell, Fiscal Agent of the Federal Farm Loan Board, December, 1926. These percentages vary of course from time to time. They are given only to indicate current methods of disposing of bonds.

Bond or mortgage sales of joint stock land banks and the farm-mortgage companies are under the direct supervision of the issuing bank or company. Three methods are used (1) direct sale to investor, (2) sale through regular agents of the bank, and (3) sale through investment banks. The first two methods are probably more common with farm-mortgage companies, while the third method seems to prevail among the joint stock banks.[1] A very large volume of the mortgages handled by mortgage companies are sold directly to insurance companies. Also, mortgage companies sell a large volume of their securities directly to a regular clientele of individual investors. Sales are made through agents of two general types —traveling agents and agents who maintain residence in the great investment centers or in farming communities. Thus, many of the larger companies maintain regular offices in the eastern cities through which to market their mortgages. The loan agents located in farming communities frequently find investors in the locality in which the loan is made. Joint stock land banks deliver their bonds to investment bankers who sell them through their regular investment channels for a small commission.

In addition to the personal solicitations of agents and officials, the farm-mortgage banks promote the sale of their securities by advertising in the periodical and daily press and by mailing circulars to prospective investors.

Process of Bond and Mortgage Issue.—There are two main forms in which farm-mortgage securities are sold by bankers: (1) the mortgage itself, and (2) bonds representing individual mortgages or a collection of mortgages. The farm-mortgage companies commonly pass the mortgage on to the investor. The borrower supplies the banker with his promissory note and a mortgage on the farm, and these in turn are sold to the investor. This is the simplest method of selling securities and it involves very little trouble to the banker. But the amount of the mortgage is not always adapted to the requirements of the investor.

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[1] Letters received from joint stock banks indicate that about 95 per cent of them sell their securities through investment bankers, while the indications are that only about 15 per cent of the farm-mortgage companies sell through investment bankers.

To overcome this disadvantage a few mortgage companies issue serial bonds or participation certificates representing the mortgage. The bonds or certificates are issued in denominations convenient to investors, such as $100, $500, and $1,000. The mortgage itself may or may not be placed in the custody of a third party, a trustee, who guarantees its safekeeping. Thus, each purchaser of a serial bond or certificate becomes a part owner of a specific mortgage. Another method, now almost obsolete, is that of issuing bonds on the general credit of the company. These so-called "debenture" bonds were issued in large quantities during the "farm-mortgage craze.[1]" The total outstanding bonds of the company were presumably backed by an equal amount of farm mortgages. The $1,000 bond, for instance, represented $1,000 in farm mortgages in general. In the absence of sufficient legal restrictions and supervision, this system was greatly abused by the reckless management of the companies. In some cases bonds were issued greatly in excess of the amount of mortgages held. After the collapse of a large percentage of the farm-mortgage companies in the 'eighties and early 'nineties, the debenture-bond system was almost entirely discarded. Very few, if any, of the farm-mortgage companies use this system at present. Of the three methods described here the practice of selling the mortgage outright to the investor is by far the most common.

Federal and joint stock land banks sell debenture bonds exclusively. Their bonds simply represent a collection of mortgages. The law requires that the banks maintain at all times an amount of farm mortgages equal to the total outstanding bonds. Every bond issue must be approved by the Federal Farm Loan Board, and the mortgages offered as security for the bond issue must be deposited with the farm-loan registrar of the district in which the issuing bank is located. The Federal Farm Loan Board appoints a farm-loan registrar for each of the twelve districts. It is his duty to act as trustee for investors. When certain mortgages in his keeping mature, he requires the bank to replace them with other mortgages; or when a new bond issue is made, he requires the deposit of an equal amount of additional mortgages. The registrar receives all applications for bond issues and passes them on to the Federal Farm Loan Board. When the board approves such application, the Secretary of the

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[1] See Chap. XI.

Treasury of the United States has the bonds printed and delivered to the board, which in turn delivers them to the issuing bank through the farm-loan registrar.

Collecting the "Banker's Margin."—In addition to fees for such specific services as appraising, determining title, and negotiating the loan, the banker collects a "margin" from which to pay the general costs of operating the bank and from which to pay dividends to shareholders. Thus, the banker is compensated for the trouble and cost of caring for the investment and collecting interest and principal payments. Presumably, the margin also covers the risk of guaranteeing the security in cases in which the banker guarantees the payment of the loan. The general expenses of maintaining the banking house and salaries for the officials and the clerical force, as well as many incidental expenses, must be paid from the margin. Also, the banker sometimes finds it necessary to supplement the appraisal and other fees with the general earnings of the bank.[1] The portion of the margin which remains after all expenses are paid is available for surplus or dividends.

Federal and joint stock land banks obtain their margin by charging a higher rate on loans than they pay on bonds. The margin varies from ½ to 1 per cent. This margin is of course collected each year on the unpaid principal of the loan. Farm-mortgage companies have no uniform method of collecting the "banker's margin." Probably the most common method is that of collecting a cash commission at the time the loan is made.[2] Under this plan, the banker simply deducts the amount of his commission when the loan is made. The amount of this commission is commonly 5 to 10 per cent of the loan, depending to some extent on the length of term for which the loan is made. The flat-commission plan is particularly common among so-called "farm-mortgage brokers," whose functions cease when the loan is negotiated and a buyer is found. A variation of the cash commission plan is that of requiring part cash payment, the remainder being paid as payments are made on the loan. For instance, the company may call for half of the commission at the time the loan is made, and the other half in equal annual installments during the succeeding five years.

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[1] See WIPRUD, A. C., "The Federal Farm Loan System in Operation," p. 70.

[2] According to letters received from 59 farm-mortgage companies distributed over the country, 54 receive a part or all of their margin in the form of a cash commission. In some of these cases, however, a part of the commission is collected at interest-payment dates.

The second most common method used by mortgage companies in collecting the margin is probably that of selling the mortgage at a lower rate of interest than the borrower pays. There is of course little difficulty in this plan when the banker sells bonds or certificates representing the mortgages; but since most mortgage companies pass the actual mortgage on to the investor, certain devices have been adopted by which to collect the margin. In the first place, many companies take a "commission note" secured by a second mortgage on the borrower's property. Under this method, the borrower simply has two notes to pay. If the first mortgage note calls for payment of 6 per cent interest, the second mortgage note held by the bank will probably call for an annual payment of an amount equal to 1 per cent of the principal of the loan. In the second place, some few mortgage companies simply withhold their margin when remitting interest payments to the investor. If the banker sells a 7 per cent mortgage, for instance, by agreement with the investor he retains 1 per cent and remits 6 per cent at each interest-payment date during the term of the loan.

Bond Maturities.—Under the system used by most mortgage companies of passing the mortgage on to the investor, or of issuing serial bonds or certificates representing a specific mortgage, the investor usually receives payment on principal as the borrower makes payment. That is, if the bank sells a $10,000 mortgage which the borrower has contracted to repay in ten equal annual installments, the bank simply collects $1,000 on the principal each year and passes it on to the investor. But, regardless of the advantage of installment payments from the point of view of the borrower, usually they are not satisfactory to the investor. The trouble and expense of continual reinvestment are too great.

Federal and joint stock banks, on the other hand, accept annual or semi-annual payments from borrowers and pay investors in lump sum. There is no direct connection between individual mortgages received from borrowers and individual bonds sold to investors. Instead of looking to a certain borrower to pay a certain investor, the bank looks to its total receipts during a given year to pay its total obligations for that year. Suppose the bank can arrange to have a group of bonds amounting to $1,000,000, mature during a particular year and collect a total of $1,000,000 in principal payments from borrowers during that year. This group of bondholders could thus be paid in lump sum from the installment payments of all the bank's borrowers.

Then, in order to pay investors in lump sum and permit borrowers to pay by installments, the federal and joint stock banks have the problem of adjusting the volume of annual bond maturities to the volume of annual principal payments from borrowers. Such adjustment cannot be made with a very high degree of accuracy, since bonds are made to mature 20 to 30 years after they are issued. Obviously, no banker can estimate his receipts from borrowers 20 years in advance. Twenty years hence his receipts may be much greater or much less than his bond obligations for that year. But there are certain banking methods by which the proper adjustment can be made. If receipts are too great, the banker may invest his surplus in United States Government bonds or federal farm loan bonds, or he may use the surplus to make additional loans. If the receipts for the year are less than the bond obligations, he may cover the deficit with a new bond issue. The federal and joint stock banks obtain additional flexibility in adjusting bond maturities through the "callable" feature of their bonds. Bonds may be issued with an option providing for calling the bonds after a specified time which must not be more than 10 years after they are issued. Thus, the banker may employ surplus collections for a particular year by calling and cancelling some of its outstanding bonds. Also, he can prepare in advance for a year of heavy bond maturities by calling some of the bonds each year for several years prior to the year of heavy maturities. Of course, the callable feature has other purposes, such as the replacement of high-interest bonds with low-interest bonds, but probably the most important function is that of supplying flexibility to bond maturities.

Security Offered by Farm-mortgage Banks.—Farm-mortage securities are in all cases legally secured by either specific or general mortgages on farm property.[1] If the investor holds a mortgage, serial bonds, or participating certificates, the investment is secured by a mortgage on specific farm property. If the investor holds a debenture bond, the investment is secured by the general assets of the issuing bank, but the law requires that the "general assets" of federal and joint stock banks include an amount of farm mortgages equal to the outstanding bonds of the bank. Hence, all outstanding bonds are secured as a group by an equal amount in farm mortgages held by the bank.[1]

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[1] There are possibly a few farm-mortgage companies which issue debenture bonds and which do not maintain mortgages equal to their outstanding bonds, but the amount of business done by such companies is negligible.

Farm mortgages commonly represent only 40 to 50 per cent of the value of the property mortgaged. Federal and joint stock land banks are required by law to restrict their loans to 50 per cent of the appraised value of farm lands and 20 per cent of the value of buildings and improvements. Loans made by these banks during their 13 years of operation have been about 40 per cent of the appraised value of all property mortgaged.[2] Likewise, the loans of farm-mortgage companies are becoming fairly well standardized at 40 to 50 per cent of the value of the property mortgaged. Although some companies make more liberal loans and others restrict their loans to less than 40 per cent of the value of the property, by far the most common ratio is 40 to 50 per cent. This gives the investor a 50 to 60 per cent margin of safety.

In addition to the security of the mortgage itself, the mortgage or bond is sometimes guaranteed by the assets of the bank. Thus, the federal and joint stock banks are liable by law to the extent of their capital stock and an additional amount equal to the capital stock. Also, in the case of the federal land banks, the twelve banks are jointly liable for the bonds of any one of the banks. Furthermore, the Federal Farm Loan Act restricts the amount of bonds which the federal and joint stock banks may issue. Joint stock banks are not permitted to have bonds outstanding equal to more than fifteen times the amount of their capital and surplus, while federal land banks may have bonds equal to twenty times their capital stock alone. Thus, if the joint stock bank is to be able to issue bonds beyond a certain amount it must increase its capital or surplus. In the case of the federal land bank, each borrower is required to buy stock equal to 5 per cent of his loan, and hence the capital stock of the bank is automatically increased at the ratio of 1 to 20. That is, the power of the federal land bank to issue bonds is automatically increased as its loans are increased. Each $1,000 loan gives the bank a $1,000 mortgage and $50 in capital stock on which to issue a $1,000 bond.

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[1] In case of emergency these banks are permitted to substitute cash and government bonds for farm mortgages.

[2] Federal Farm Loan Board, *Ann. Repts.*

The surplus and undivided profits of federal and joint stock banks serve also as security for the investor. Each bank is required by law to set aside semi-annually 25 per cent of its net earnings as a reserve or surplus until the reserve is equal to 20 per cent of the capital stock, and 5 per cent of its semi-annual net earnings thereafter. In the case of federal land bank bonds, the surplus and undivided profits of the loan associations serve as further security. The associations are required to set aside semi-annually 10 per cent of their earnings as reserve until the reserve is equal to 20 per cent of their capital stock, and 2 per cent thereafter.

While a few of the farm-mortgage companies guarantee their mortgages,[1] the great majority seem to follow the practice of the bond houses of "recommending but not guaranteeing" their securities. Unlike the federal and joint stock land banks, there are no laws which require that they guarantee their securities. In order to maintain a reputation for safe investments, however, they do sometimes compensate investors for losses.

Safety in Choice of Credit Risks.—In the last analysis, safety lies chiefly in the ability of the banker to appraise credit risks. If the banker carefully selects his borrowing customers and if he follows a conservative policy in appraising property values, there is little question of the safety of the interest and principal of the investment. On the other hand, an inefficient system of appraisals may easily lead to delayed payments, frequent foreclosures, and even the loss of a part of the investments. Government supervision of the federal and joint stock banks is designed to compel efficient appraisal and adequate protection to the investor. Since there is little or no government supervision of the farm-mortgage companies, their reputation among investors rests largely upon their past performance and upon the individuals in charge of the companies.

[1] Letters from more than one-fourth of the total membership of the Farm Mortgage Bankers' Association of America indicate that only about 8 per cent of these banks guarantee their securities.

MAINTAINING THE SECURITY

Placing the loan and selling the mortgage or bond are only the beginning of the mortgage banker's function. He must look after the investment throughout the term of the loan, *i.e.*, (1) maintain the value of the mortgaged property, (2) collect interest and principal payments, and (3) make payments of interest and principal to the investor.

The farm-mortgage banker is unique among investment bankers in that he supervises the security after the loan is made. Investment banks, or bond houses as they are usually called, sell bonds for large corporations which presumably are well known to the investing public. The investor commonly buys the bonds of a particular corporation because of its reputation, rather than the reputation of the bond house which happens to be floating the issue. But in the case of the farm mortgage, little or nothing is known about the farmer whose mortgage the banker is offering. Moreover, the investor usually has no means of obtaining information on the security, other than through the banker. After the loan is made he has no means of ascertaining whether the property mortgaged is being maintained properly. The investor must depend largely on the reputation of the bank. Farm-mortgage banking experience indicates that supervision by the banker is almost imperative to the sale of the security. Of course, the federal and joint stock banks, as well as some of the mortgage companies which guarantee their securities, have a special interest in maintaining the security back of loans.

The Function of Maintaining Security. Maintenance of the value of the security involves keeping a close check on the borrower with regard to (1) the proper care of the land and buildings mortgaged, (2) payment of taxes, and (3) payment of insurance on buildings. Mortgage agreements almost universally provide that the borrower take "proper" care of the property and pay all taxes promptly. Usually, the borrower agrees to maintain insurance on the buildings. It is the banker's business to see that the provisions of the contract are carried out. If the soil is not maintained by a good system of crop rotation, the use of fertilizer, the maintenance of terraces, drainage ditches, etc., the farm will obviously depreciate in value over a period of 10, 20, or 30 years. If taxes are not paid promptly, the property may be attached by the state, which in all cases has prior claim even though the banker holds a first mortgage on the property.

If insurance against fire hazards is not maintained, the banker stands a chance of losing a large share of his security over night.

Methods of Maintaining Security.—A few farm-mortgage companies advance funds to pay taxes and insurance premiums in case the borrower is unable to meet these payments. The advance is charged to the account of the borrower and collected at some later date. Federal land banks hold the members of the local association responsible for any default on the part of the borrower. Each member of the association is liable to double the amount of his stock as a guarantee of the loans made to the membership.

The rule of maintaining the property in proper repair is not enforced very strictly by the banks, largely because of the indefiniteness of the meaning of "proper care." No standardized method of caring for the soil has been devised. Moreover, it would be rather difficult to bring suit for foreclosure because of the failure of the borrower to terrace the farm, for instance, when no specific reference is made to terracing in the mortgage agreement. While it is only in extreme cases of neglect that the mortgage banker forecloses, the local agents of mortgage companies and joint stock banks and the officers of the local associations frequently inspect mortgaged farms and make suggestions as to the proper care of the property. Of course, the banks attempt in the beginning to select as their customers only those farmers who are good managers and who will use a reasonable amount of diligence in maintaining the property in good condition.

COLLECTING AND PAYING INTEREST AND PRINCIPAL

Throughout the period of the loan the banker collects and pays annual or semi-annual interest payments. This service involves a considerable amount of clerical work. A 30-year loan on which semi-annual interest payments are made, for instance, involves sixty collections. It is usually necessary to send out a notice prior to the date of payment, and frequently several notices are required. Also, in order to maintain the good will of the investor, mortgage companies often advance the interest from their own funds.[1] Federal and joint stock banks of course pay investors promptly on the regular interest-due dates. In fact the investor simply clips his coupon and draws on the bank, or receives a check for the interest. Collecting interest from borrowers and paying interest to investors are two distinct processes with these banks, since their bonds do not represent individual loans. The bank simply guarantees the regular payment of interest to all bondholders and, in turn, collects interest from all borrowers. In the case of the federal land banks, the local associations are held responsible for prompt payment by members. The association advances payment in case of delay on the part of the borrower.

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[1] Correspondence with farm-mortgage companies indicates that about one-third of them advance interest and principal payments.

Likewise, principal payments are collected by the bank. Federal and joint stock banks institute foreclosure proceedings in case of default of borrowers and guarantee full payment to investors. Also, many of the farm-mortgage companies perform the function of foreclosing mortgages. Some of these companies follow the practice of replacing defaulted mortgages with others in good standing, without loss or inconvenience to investors. The expense of foreclosing is paid from the returns of the sale of the mortgaged property, provided of course that the sale price is adequate.

Questions and Problems

1. Contrast the business of the commercial banker with that of the farm-mortgage banker.
2. In what ways does the greater distance between the farm-mortgage banker and his borrowing and investing customers affect his organization and methods of operation?
3. Account for the distribution of joint stock land banks and farm-mortgage companies as indicated on the map in Fig. 4. In your opinion, are the federal land banks properly distributed? What factors determine the location of farm-mortgage banks?
4. What are the chief bases upon which the loan executives of farm-mortgage banks determine whether to make a particular loan?
5. Why is abstracting of title so expensive?
6. Explain the great difference in the length of term for which loans are made by the banks of the federal farm-loan system and the farm-mortgage companies.
7. Summarize the advantages to the borrower of the annual-payment method over the lump-sum method of repaying loans. What are the disadvantages of the annual-payment method to the banker?
8. Do you prefer the proportional or the amortization plan of repaying loans? Why?
9. What determines the lending power (1) of the federal land bank, (2) of the joint stock bank, and (3) of the farm-mortgage company?

10. Describe the methods used by the three types of farm-mortgage banks in selling securities.

11. Contrast the plan of selling the mortgage with that of selling bonds based on a collection of mortgages. How do you account for the fact that most farm-mortgage companies retain the former plan?

12. What are the various methods of collecting the banker's margin?

13. Describe the methods used by the banks of the federal farm-loan system in adjusting their bond maturities to their income.

14. Why are interest rates on federal land bank bonds usually lower than those on farm mortgages sold by farm-mortgage companies? Why are the former generally considered a safer investment?

15. Can you account for the fact that farm-mortgage bankers perform the functions of supervising the security and collecting and paying interest and principal, while investment bankers in other fields usually leave these functions to the investor?

References for Further Reading

MORMAN, J. B., "Farm Credits in the United States and Canada," Chaps. 4 and 6 to 8.

ROBINS, K. N., "The Farm-mortgage Handbook," Chap. 3.

WIPRUD, A. C., "The Federal Farm Loan System in Operation," Chaps. 1 to 6.

WRIGHT, IVAN, "Farm-mortgage Financing," Chaps. 4 to 10, and 13.

CHAPTER XIV

INTERMEDIATE-CREDIT BANKING INSTITUTIONS

Intermediate-credit banking institutions include livestock loan companies and the federal intermediate-credit system. As the name indicates, they extend credit for intermediate terms, commonly from six months to two or three years.

These credit agencies are similar in many ways to farm-mortgage banks: (1) they are non-deposit banks; (2) they usually require specific mortgages; (3) they obtain their funds by selling notes or bonds to investors; (4) they are usually located at considerable distance from the borrower. They differ from mortgage banks chiefly in that (1) they make loans for shorter terms; (2) they take mortgages on personal property, such as harvested products, cattle, and other chattels, rather than real estate; (3) in some cases a mortgage is not required.

As was pointed out in Chap. XI, the intermediate-credit institutions are of recent origin. Cattle loan companies were first definitely organized during the first decade of this century, while the federal intermediate-credit system was created by the Agricultural Credits Act of 1923. Ostensibly, the demand for this new type of banking insititution was based wholly on the farmer's need for credit for a longer period than commercial banks were adapted to supply and for a shorter period than was desirable for mortgage banks. In reality, there were other significant reasons for their establishment.

In the first place, local banks were unable in many cases to supply an adequate amount of credit. This was the primary cause for the organization of the cattle loan companies. Frequently cattlemen required larger individual loans than the local bank was permitted by law to make. Since the maximum loans which national banks may make to any one individual is 10 per cent of their capital and surplus, the larger cattlemen often found local sources of credit inadequate. As a result of this situation, livestock commission companies in the marketing centers began supplying loans to their customers during the latter decade of the past century. This policy was advantageous to the commission house in that loans were made on the condition that the firm be permitted to sell the cattle of the borrower. But commission houses are primarily brokers, not bankers. The development of the livestock or cattle loan companies as a specialized branch of the livestock industry was, therefore, a normal development. During the past two decades commission companies have become a relatively less important agency in livestock financing. This function is performed largely by loan companies and commercial banks.

Farmer's cooperative marketing concerns likewise found local banks inadequate in supplying the credit necessary to an orderly marketing program. The development of cooperative marketing organizations was to a large extent responsible[1] for the introduction of the federal intermediate-credit system.[2] While the hesitancy of local bankers in some sections in financing cooperative concerns and the possibility of getting funds at lower rates of interest caused many of the cooperative marketing leaders to urge the creation of the new banking system, the inability of local banks to supply the amount of credit needed was a significant factor.

Poor Market for Intermediate-term Paper.—In the second place, the local commercial banks were handicapped in supplying intermediate-term credit because of the lack of a ready market for this type of paper. The maximum term for which the federal reserve banks would rediscount their notes was six months. Moreover, a large percentage of farmers' banks were not members of the federal reserve system and had no direct access to this discount market. The local banker would not hesitate to make loans for a full year, or even more, if he could be certain that in case of necessity he could find a market for such paper. This is exactly what the livestock loan companies and the intermediate-credit banks have done. Being located in the larger cities, they have established connections with the large commercial banks. Also, they have made considerable progress in widening the market for agricultural paper through standardization.

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[1] See *Hearings before the Committee on Banking and Currency*, House of Representatives, Sixty-seventh Congress, Third and Fourth Sessions, or S. 4280, Part 2.

[2] Approximately two-thirds of the total loans of the twelve intermediate-credit banks during the first 3 years of operation were made to cooperative marketing concerns.

With the market for intermediate-term notes thus broadened, the commercial banks of the country are actually absorbing practically all of the loans which commonly have been assumed to be ill-adapted to the commercial bank.[1]

High Interest Rates.—In the third place, commercial banks in many farming sections charged a very high rate of interest. The livestock loan companies and the intermediate-credit banks were to supply an element of competition which would be effective in reducing the general level of interest rates charged farmers, cattlemen, and the cooperative marketing associations. In fact, the reduction of interest rates to farmers was considered so important that Congress exempted the securities of the intermediate-credit banks from taxation.

The livestock loan companies and intermediate-credit banks have tapped a new source of credit for cattlemen and farmers. They have opened up a new market for so-called "slow" agricultural paper. The intermediate-credit bank bond is known in all the financial centers of the country as a desirable investment. Likewise, the paper of the leading livestock loan companies is rapidly finding its way into the investment markets. The methods which have been used to establish this long-distance connection between individual farmers and the financial centers of the country will be described in the remaining pages of this chapter.

LIVESTOCK LOAN COMPANIES

Livestock loan companies include the so-called "cattle loan companies," "breeders' loan companies," "livestock finance corporations," and all other financial organizations created for the purpose of financing livestock production, whether it be beef cattle, dairy cattle, sheep, goats, or swine. Most of the larger companies are located in the packing centers, such as Chicago, Kansas City, Omaha, St. Joseph, St. Louis, Denver, Fort Worth, Los Angeles, Salt Lake City, and Portland, while smaller companies are distributed throughout the cattle- and sheep-range sections west of the Mississippi. The number of livestock financing companies operating in the country is not known, but on the basis of reports from officials of the federal intermediate-credit banks and some of the leading cattle loan companies, it is estimated that there are about 125 operating at present (December, 1929).

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[1] The Fiscal Agent of the Federal Farm Loan Board, Charles E. Lobdell, reports that practically all of the bonds of the intermediate credit banks are sold to commercial banks.

On the basis of the methods used in obtaining loanable funds, there are two distinct types of livestock loan companies: (1) those which sell the paper directly to commercial banks and other investors, and (2) those which rediscount their notes with the federal intermediate-credit banks. Most of the older "cattle loan companies" are of the first type, while the newer livestock financing concerns have been organized according to the provisions of the Agricultural Credits Act of 1923.

The first type of concerns includes the "affiliated" companies and the "independent" companies. At the turn of the last century when it became evident that commercial banks and commission houses were inadequate to finance livestock production, a plan very much in favor was that of organizing a loan company as a subsidiary to a stockyard bank. Such company was designated as an "affiliated" company. The directors of the bank became directors also of the loan company. A manager was appointed and, so far as direction and control are concerned, the cattle loan company was simply a new department in the bank. From a legal standpoint the new organization had certain distinct advantages: (1) there was no law restricting the amount which could be advanced to an individual borrower; (2) the company was not required to keep reserves; and (3) the liability of stockholders was limited to the amount of the capital stock, whereas, the stockholders in the national bank were subject to double liability.

As compared with the "independent" companies, the "affiliated" companies had the advantage of the facilities of a parent banking organization. They were supervised by bankers with long experience in livestock financing. These companies also had the advantage of the prestige of well established banking organizations. This was a particularly important advantage in obtaining funds, since "cattle paper" was little known in the financial centers of the country. The paper was sold, and it is today for that matter, largely on the basis of the reputation of the company or bank placing it in the investment market. Also, the affiliated company always had a parent organization which would make special effort to buy its paper or to assist in its sale to other banks.

As the number of commercial banks which were sufficiently interested in livestock financing to organize separate loan companies was rather strictly limited, the field was open to independent operators. The opportunity appealed to many men who had held subordinate positions with banks and commission houses and had experience in handling livestock paper. Their methods of operation were similar to those of the affiliated companies, but they had to establish their own connections with borrowers and investors. During the past 25 years the independent cattle loan companies have absorbed an important share of the livestock financing business of the country.

The establishment of the federal intermediate-credit banks in 1923 gave rise to the organization of a considerable number of new livestock financing organizations. The War Finance Corporation had assisted in financing the livestock industry[1] in the emergency following the collapse in prices in 1920 and 1921, but it was to cease operations as soon as the most serious phases of the emergency had passed. As a matter of fact, the livestock industry was far from a complete recovery when the services of the War Finance Corporation were withdrawn in 1924.[2] Its operations had shown the advantages of a more direct connection with the investment markets than either the small commercial banks or the ordinary cattle loan companies had been able to establish. When the intermediate-credit banks were established some of the emergency companies which had been obtaining funds through the War Finance Corporation were organized under the provisions of the Agricultural Credits Act of 1923. Also, a number of new companies established rediscount relations with the new intermediate-credit banks. At the end of 1926 a total of about 35 or 40 livestock loan companies were rediscounting paper with the intermediate-credit banks.[3] The total rediscounts for livestock loan companies outstanding on Dec. 31,

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[1] See Benner, Claude L., "The Federal Intermediate Credit System," Chap. 4.

[2] See Larmer, Forrest M., "Financing the Livestock Industry," Chaps. 5 and 6.

[3] Practically all of these companies operate in the seven federal land bank districts west of a line from Chicago to Houston. According to the reports of the officials of the intermediate-credit banks, these companies were located as follows: St. Paul district, 4; Wichita district, 2; St. Louis district, 2; Houston district, 8; Spokane district, 7; Berkeley district, 6; Omaha district, unknown.

1925, was, however, only about $10,400,000,[1] which is only a very small portion of the total loans made to livestock producers by all financing institutions.

A noticeable feature here is that 20 of the 29 companies whose location is definitely known are located not in the livestock-marketing cities but in the smaller cities, such as Marfa, Tex.; Yakima, Wash.; Hazelton, N. D.; Blackfoot, Idaho; Fresno, Calif.; and Telluride, Colo. Companies which rediscount with intermediate-credit banks of course do not have the problem of finding buyers for their paper. The intermediate-credit banks perform this function. For this reason they are better adapted to small-town locations out in the range sections than are the companies who sell their own notes. Another interesting feature of the development of these companies is that more than one-half of the loans of one-third of the companies are made on sheep and dairy cattle, rather than beef cattle.

Making Loans.—Livestock loan companies make loans directly to the producer or indirectly through local banks. Direct loans seem to predominate, even among the companies located in the packing centers. In the case of indirect loans the local banker looks after most of the detail of appraising and supervising the security. In case of direct loans, the credit analysis and inspection of security are made by the company. This usually involves special appraisal and inspection tours by representatives of the company.

Purpose of Loans.—The length of the term of loans made by livestock loan companies and the amount of loans in relation to the value of the security vary according to the purpose of the loan. While a few companies make loans on dairy herds and an increasing number are making loans on sheep and goats, a very large percentage of the loans of livestock loan companies are made on beef cattle. Broadly speaking, there are three classes of beef cattle, *viz:* feeders, breeders, and stockers. Loans on feeders are sometimes called "Corn Belt loans" and those on breeders and stockers are called "range loans." Feeder or Corn Belt loans are made for periods of three to six months, according to the length of the feeding period. Since these loans are made for short terms during which the cattle are rapidly gaining in weight, loan companies are willing to extend loans amounting to 80 to 100 per cent of their purchase value.

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[1] Federal Farm Loan Board, *Ann. Rept.*, 1925.

Although some livestock loan companies specialize in feeder loans, most of these companies operate in the range sections where loans are made on breeders and stockers. In the first place, the term of feeder loans is well adapted to commercial banks, and since the Corn Belt states are comparatively densely populated, banks are plentiful. In the second place, livestock loan companies are able in most cases to obtain higher interest rates on range loans.

Most of the range loans are made for periods of six months to two years. The breeding herd includes cows, small calves, and bulls. This type of herd is farthest from the market, in time, and hence loans are for the longest periods. Stockers include maturing stock and matured cattle ready for grass fattening. Loans on the latter type of cattle are sometimes called "summer loans," since the stock are taken from feed lots in the early spring and "finished" on the range during the summer. Loans for grass fattening are commonly made for a term of six months.

Loan companies usually restrict their advances on breeders and stockers to about 50 to 60 per cent of the value of the herd. These cattle are poorer security than feeders, since they include very old and very young stock. Also, they are subject to loss from drought and cold weather.

Credit Analysis.—From the point of view of credit analysis, loans of livestock loan companies are unique in that they are based on "long-distance" chattel mortgages. The commercial banker often takes a chattel mortgage, but he is near the property and can make frequent inspections. The farm-mortgage banker takes mortgages on property located at long distances from the bank, but the mortgages are on real estate which is not subject to loss, removal, or depreciation in the degree that cattle are. This means that the successful cattle loan company must make very careful credit analyses. In the first place, much depends upon the character of the borrower. In this respect the cattle loan is similar to a personal loan. The security may easily be moved or lost. It is subject to rapid depreciation in value under poor management. Honesty and dependability are imperative. Also, the borrower must be a good cattleman. Loan companies must, therefore, take particular care in selecting their borrowers. General information is obtained by most companies on a special application blank filled out by the borrower; specific inquiries are made among bankers, merchants, and other individuals in the borrower's community; and, in most cases, the company sends a representative to make a personal investigation and inspection.

In the second place, the financial standing of the borrower is investigated. Not only is a financial statement of the borrower's business usually required, but a system of checks is used to determine the accuracy of the statement. For instance, in the extreme necessity of obtaining a loan the borrower may indicate that he has full equity in his ranch, whereas in reality a mortgage is held against it. The loan company discovers such false statements by inspecting the county records. Again, the borrower may greatly overestimate the value of his ranch and equipment. If such is the case, the inspector can readily discover the discrepancy when he makes a personal investigation. In other words, the loan companies determine by check and double-check the amount and nature of the property held by the borrower, and the amount and nature of his debts.

In the third place, a representative of the loan company inspects the cattle which are to be mortgaged for the loan. Formerly, a haphazard count or rough estimate was considered sufficient, but most companies have replaced this practice with a system which requires "a tally as to class, number, value, weight, and brands."[1] Counting and inspection are commonly done by driving the cattle through a chute. Knowledge of the number and condition of the cattle at the time the loan is made is insufficient. The company must be convinced that the borrower has a sufficient supply of feed and water to maintain them in good condition throughout the period of the loan. Some companies refuse loans to ranchmen who do not own the ranches they operate, and most other companies stipulate that the borrowers must at least have long-term leases on their grass lands.

In the fourth place, special protection against loss is obtained through certain provisions of the mortgage itself. The chattel mortgages of most of the livestock loan companies contain the following provisions: (1) in case of poor management the company may take possession of cattle, even before the note is due if it seems desirable; (2) the increase of breeding herds is subject to the original mortgage; (3) the borrower is forbidden to give a second mortgage on the herd; and (4) the borrower may not sell mortgaged cattle without the written permission of the company.

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[1] Newman, Victor H., "How to Finance Cattle Feeding," published in 1923 by The American Institute of Agriculture. Some companies require the borrower to fill out a special "brand sheet" by which (1) the cattle may be identified, (2) possible prior mortgage may be discovered, and (3) the legality of title may be determined. The lack of adequate registration of brands in some states, however, reduces the effectiveness of this means of identification.

Selling Notes.—Livestock loan companies retain a very small percentage of the notes obtained from borrowers, since their own capital is used largely in carrying on operations. Hence, a very important part of their business is that of finding an outlet for the incoming notes. One method of obtaining funds used by some companies, particularly in cases of emergency, is that of indorsing the notes and submitting them as collateral for direct loans from commercial banks. By far the most common method, however, is that of rediscounting the notes with bankers. Only a negligible quantity of cattle paper is sold to individual investors.

Sale to Commercial Banks.—Notes sold to banks are almost invariably indorsed by the loan company, except in case of sale by an affiliated company to its parent bank. Notes are sold to the banks of the city in which the company is located, to banks of other cities (chiefly eastern cities), and to country banks. According to one authority, the eastern banks take a larger percentage of the paper than does either of the other groups of banks; the country banks are second; and the local city banks take the smallest percentage.[1] The place of sale depends largely upon the company and its location. In the case of affiliated companies located in the smaller cities, such as St. Joseph and Omaha, a very large percentage of the paper is sold to eastern banks which are correspondents of the parent bank. On the other hand, the affiliated companies in Kansas City, Chicago, and St. Louis, find an important market for their notes with country banks which are correspondents of the parent banks. Some parent banks have made cattle paper particularly attractive to their country bank correspondents by agreeing to take the notes back in case the purchaser is unable to carry them to maturity.

As was pointed out above, the independent companies do not have such excellent connections with country and city correspondents. The indications are, however, that they sell about the same portions of their notes to home-city banks, country banks, and eastern banks as do the affiliated companies.

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[1] *Ibid.*, pp. 28–29.

Rediscounts with Federal Intermediate-credit Banks.—It was indicated above that a considerable number of the smaller livestock loan companies rediscount their paper with the intermediate-credit banks. The methods used by the latter institutions in disposing of the paper will be considered later in this chapter under the discussion of the federal intermediate-credit system.

Forms of Securities.—Notes are commonly sold in complete units as they are received from stockmen. Sometimes the loan is divided into several notes of small denominations for convenience to small investors, but banks usually prefer full control of the notes of a given loan. Another device which has been used is that of issuing debenture notes on the basis of chattel mortgages held in trust. Although the federal intermediate-credit banks use this form entirely, most of the livestock loan companies sell the original notes, either in complete loan units or in series.

The income of the loan company consists of the margin between the interest rate charged the borrower and the rate at which the note is rediscounted. Loan companies rediscounting with federal intermediate-credit banks have been allowed to charge the borrower from 1½ to 2½ per cent more than the rediscount rate of the intermediate-credit bank.[1] In the case of affiliated and independent companies the rediscounting bank usually knows nothing of the rate charged the borrower, since the interest to maturity is added in the note. The company's margin commonly varies from 2 to 3 per cent on feeder loans and 2 to 5 per cent on range loans.[2]

Livestock Paper as an Investment.—One of the leading attractions of livestock paper for the commercial banker is the relatively high interest rate of 5 to 7 per cent. Such rates are not high as compared with rates charged by country bankers on local loans, but they are high as compared with rates which the country banker is able to obtain on deposits with a city correspondent, or on bankers' acceptances and call loans. That is, the rate is exceptional as compared with most other outside investments available to the country banker. The rates are likewise attractive to city bankers.

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[1] Federal Farm Loan Board, *Ann. Rept.*, 1925.

[2] LARMER, FORREST M., "Financing the Livestock Industry," pp. 59–61. According to this authority the most common rate paid by the original borrower on feeder loans just prior to the War was 8 per cent while that on range loans was 10 per cent. Companies which discount with the intermediate-credit banks were charging 7¼ per cent in December, 1926.

The objectionable features characteristic of livestock paper are: (1) the notes run for longer terms than are usually desired by commercial banks, and (2) the lending practices of livestock loan companies are not standardized. The objection that the term is too long has been partially overcome in the past by the renewal device used by the loan companies. Although the livestock producers needed loans for one or two years, the companies usually made the notes for a maximum period of six months with a possibility of renewal. In this way the company guaranteed liquidation of the paper at the end of six months. If the company was unable to sell sufficient new notes to raise the money, renewal of the note was refused and the borrower was called on to pay off the note. Thus, the disadvantage of the maladjustment of intermediate-term paper to the needs of commercial bankers was shifted back to the livestock producer. He was never certain of a renewal. This practice of making notes for shorter periods than the needs of producers require is, unfortunately, quite prevalent at the present time among the affiliated and independent companies. The privilege[1] of rediscounting livestock paper with federal reserve banks for a maximum period of nine months has, however, tended to increase the certainty of renewal.

The lack of standardization of lending practices among the livestock loan companies has compelled the commercial banker to use exceptional care in choosing a company through which to buy cattle paper. Since the original loans are made at long distances from the banker who buys the notes, it is next to impossible for him to make an investigation of the security. The banker must base his judgment on the reputation of the company offering the paper. This method has been highly successful in innumerable individual cases, but the uncertainty of the methods of credit analysis used by livestock loan companies has greatly restricted the market for cattle paper. The companies are under no such regulations as are state and national banks. One company may follow the practice of lending 90 per cent of the value of a herd, while another lends only 50 per cent. One company may make careful inspections, while another may extend a loan without first-hand information regarding the borrower or his security. The depression in the cattle industry following 1920 has forced many of the less conservative companies into bankruptcy and impressed the more efficient companies with the necessity of greater care in making credit analyses. Also, the losses suffered by commercial banks during this period have caused them to use greater care in investigating the company through which livestock paper is purchased.[1]

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[1] An amendment to the Federal Reserve Act raising the maximum rediscount period on agricultural and livestock paper from six months to nine months was passed in March, 1923.

From the standpoint of both investors and producers, standardization of cattle paper handled by independent and affiliated companies is one of the most vital needs in livestock financing. Whether standardization should be achieved through voluntary action of the companies, or through federal or state government regulation, is uncertain. Probably both methods could be used to advantage. The federal intermediate-credit banks have made excellent progress in standardizing livestock paper, through definite and uniform requirements concerning the borrower and his security. For example, they invariably require a detailed financial statement of the borrower's business, and the various types of loans are restricted to a definite percentage of the value of the livestock mortgaged. If such uniformity in methods were applied by loan companies, the livestock paper market could be greatly expanded to the benefit of all concerned.

THE FEDERAL INTERMEDIATE-CREDIT SYSTEM

The federal intermediate-credit system comprises twelve large regional banks and their subsidiary financing institutions.[2] Its function is "long-distance" financing. It was founded on the principle that farmers need a special system of banks adapted in size, location, and banking methods to facilitate the movement of the loanable funds of the country into the agricultural industry. So far as the distribution of credit is concerned, the system is similar to the federal reserve system: (1) both systems have regional credit reservoirs particularly adapted to assembling the loanable surplus of the district and of the other districts of the country, and (2) both have local subsidiary institutions through which credit is dispensed. The essential difference between the two systems lies, first in the kind of credit dealt in and, second, in the methods of collecting and dispensing loanable funds. The federal reserve system was superimposed on the old commercial banking system for the purpose of performing more effectively the functions of commercial banking. The intermediate-credit system, on the other hand, was established on the theory that commercial banks by their nature as deposit banking institutions are not adapted to handling the intermediate-term credit needed in agriculture.

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[1] See Larmer, Forrest M., "Financing the Livestock Industry," Chap. 11, for a discussion of certain desirable improvements in livestock financing.

[2] See Fig. 5, Chap. XIII. The Agricultural Credits Act of 1923 provides for a dual system of banks: (1) the federal intermediate-credit banks with their subsidiary institutions, and (2) national agricultural-credit corporations and rediscount corporations. The latter banks are supervised by the Comptroller of the Currency as are national banks. They are established entirely by private initiative. The minimum capital stock of national agricultural-credit corporations is $250,000, while that of rediscount corporations is $1,000,000. No rediscount corporations were organized up to the end of 1926. Only one national agricultural-credit corporation was being operated.

1. Intermediate-credit Banks

Unlike the federal land banks, the intermediate-credit banks are owned by the United States Government. Capital stock of $5,000,000 was authorized for each of the banks, but only $2,000,000 had been called by each of the banks at the end of 1926. One-half of the annual net earnings is retained as surplus until the latter is equal to the capital stock of the bank; thereafter, 10 per cent of the earnings goes into the surplus, and the remainder of the earnings is paid into the United States Treasury as dividends on capital stock. Net earnings for the twelve banks were slightly more than $1,000,000, for the combined years of 1924 and 1925. That is, the Government received annually about 2 per cent on its investment of $24,000,000.

Strictly speaking the intermediate-credit banks are a part of the federal farm-loan system.[1] They are under the supervision of the Federal Farm Loan Board, and the directors of the twelve federal land banks are also directors of the intermediate-credit banks. That is, each of the twelve districts has a federal farmer's bank with two departments, *viz:* a long-term credit department and an intermediate-term credit department.

It is impracticable for the officials of the intermediate-credit banks to make loans directly to individual farmers. The territory served is too large.[1] Hence, the policy of extending credit through local subsidiary financial institutions was adopted for these banks, as it had been done in the case of the federal reserve banks and the federal land banks.[2]

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[1] See Fig. 5, Chap. XIII.

2. Subsidiary Financing Institutions

Commercial Banks.—In order to give existing financing institutions the opportunity to enjoy the advantages of the new banks, the law extends rediscount privileges to national banks, state banks, trust companies, savings institutions, cooperative banks, and cooperative credit associations. Thus, the existing financing institutions serving farmers have a channel through which farm paper of the objectionable, intermediate-term variety can be moved. As long as the intermediate-credit bank can sell bonds and obtain loanable funds, and as long as farmers supply acceptable security for loans, the local banker cannot refuse loans on the ground that funds cannot be obtained for the terms desired.

On first thought it would seem that local banks in farming communities would make extensive use of this new rediscounting agency, which is especially adapted to handling farm paper. As a matter of fact, less than 1 per cent of the total loans and rediscounts of the twelve intermediate-credit banks on Dec. 31, 1925, were made to these institutions, and almost half of these rediscounts were made for state banks in the Wichita district.

There are certain obvious reasons why local banks have not used the intermediate-credit banks more extensively. The first, and probably the most important, reason is the regulation of the intermediate-credit banks which prohibits the customer-bank from charging the borrower more than 1½ per cent more[3] than the rediscount rate. For instance, at the common rediscount rate of 5 per cent the banker may charge only 6½ per cent on notes which are rediscounted. It is scarcely to be expected that the banks whose customary rates are 8 to 10 per cent will accept the above conditions, except in cases of extreme emergency.[1] Second, all national banks and a few state banks are members of the federal reserve system through which they are able in most cases to rediscount notes at a lower rate than that charged by the intermediate-credit banks. Even the state banks which are not members of the federal reserve system are able to obtain funds at satisfactory rates from city correspondent banks which are members. Whether the local banks obtain funds from the reserve banks directly or indirectly, there is no restriction on the original rate charged the borrower. There are doubtless many other less important reasons for the failure of local bankers to use the facilities of the new intermediate-credit banks. Some bankers object to the "red tape" of the system; some object to the strict requirements of the intermediate-credit banks, others see no particular necessity for the new institutions, and still others through inertia or indifference have not given the matter much thought.

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[1] The Federal Intermediate Credit Bank of Springfield serves eight states, *viz:* New York, New Jersey, and all of the New England states. The most common number of states per district is four.

[2] Federal reserve banks make loans and rediscount notes only for member banks. Likewise, federal land banks make loans only through the local farm-loan associations or local banks which have been designated as agents. In both cases the member banks and the local associations pass on the loan and indorse the note.

[3] The ruling has been changed to permit a 2½ per cent margin on livestock loans under certain conditions. See Federal Farm Loan Board, *Ann. Rept.*, 1925.

The situation described above was doubtless anticipated, in part at least, for the law provides special machinery through which the intermediate-credit banks may supply funds to farmers. This special machinery consists of agricultural-credit corporations and farmers' cooperative marketing associations. It extends the rediscounting privilege likewise to livestock loan companies, provided they meet the requirements set down for agricultural-credit corporations. Since these companies have been discussed above and since they are identical with agricultural-credit corporations, except in the purpose of their loans, they will be considered here as agricultural-credit corporations.

Agricultural-credit Corporations.—The agricultural-credit corporation is the one new and distinct type of local banking institution which was created to operate through the intermediate-credit banks. Agricultural-credit corporations are state banking institutions in that they are organized and incorporated under the state laws. They are federal institutions, on the other hand, in that certain specifications as to capital stock, methods of operations, etc. are made by the Federal Farm Loan Board. Hence they are not organized under the laws which regulate either the ordinary state banks or the national banks. The Agricultural Credits Act of 1923 merely names "agricultural-credit corporations" among the list of financial institutions eligible to rediscount with the intermediate-credit banks. The problem of defining what an agricultural-credit corporation is was left entirely with the Federal Farm Loan Board.[1] The board has defined it as a "corporation organized under the laws of any state for loaning money for agricultural purposes . . . , or for raising, breeding, fattening, or marketing livestock."[2]

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[1] The indications are that most of the rediscounting which has been done for commercial banks has been done under such emergency conditions. As agricultural conditions improved during 1923, 1924, and 1925, the amount of rediscounts for state banks steadily decreased.

The immediate supervision of the agricultural-credit corporations is left with the intermediate-credit banks through which they rediscount notes, but the Federal Farm Loan Board has made certain rulings and specifications which are uniformly applicable to the credit corporations of all of the twelve districts. The more important of these general rulings are: (1) agricultural-credit corporations must agree to give a financial statement to the Federal Farm Loan Board at any time upon call; (2) they must submit to at least two examinations each year by national-bank examiners or land-bank examiners; and (3) they must have a paid-up and unimpaired capital of at least $10,000.

Extent of Operation.—At the end of four years[3] after the Agricultural Credits Act was passed, 338 agricultural-credit corporations had been organized. About three-fourths of these were organized in the St. Paul, Omaha, Wichita, and St. Louis districts. These wheat and cattle districts had been in a depressed condition since 1920, and the new avenue of credit was welcomed. Some of the old cattle loan companies adjusted their business to the requirements of the intermediate-credit banks and began rediscounting immediately. New livestock-financing corporations were organized to obtain funds for needy cattlemen. Also, many agricultural-credit corporations were organized in these districts by local banks which were overloaded with "frozen" paper.

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[1] The Act itself places one restriction on the agricultural-credit corporations, *viz:* that their rediscounts with the intermediate-credit bank shall not exceed ten times the amount of their capital and surplus.

[2] Federal Farm Loan Board, *Circ.* 15 (revised).

[3] Dec. 31, 1926.

From the date of organization to the end of 1925, federal intermediate-credit banks rediscounted notes amounting to approximately $96,000,000 practically all of which were rediscounted for agricultural-credit corporations including livestock loan companies. In round numbers, they rediscounted notes for $9,000,000 in 1923, $33,000,000 in 1924, and $53,000,000 in 1925.[1] About 60 per cent of these notes were secured by cattle and other livestock.

Agricultural-credit corporations may be divided into three rather distinct classes on the basis of their origin: (1) those organized and sponsored by commercial banks, (2) those organized and sponsored by cooperative marketing associations, and (3) those organized independently.

Credit Corporations Organized by Commercial Bankers.—Many bankers in the Middle West and the prairie states were in dire straits in 1923. They had notes which could not be liquidated until agricultural conditions improved and they needed outside funds to tide them over. Agricultural-credit corporations could be established through which some of their "frozen" assets could be turned into cash. Hence, a great number of the credit corporations which were organized during 1923 and 1924 were organized and managed by the officials of the distressed banks. Some bankers looked upon the intermediate-credit banks merely as emergency government financing institutions and were somewhat disappointed by their strict requirements.[2] It was thought by some that by organizing credit corporations they could dispose of the less desirable paper, while the bank could keep the more desirable notes. It seems that very few bankers have as yet conceded that there is a permanent place in the local communities for agricultural-credit corporations, except possibly those which deal in the longer term livestock paper. A great number of credit corporations which were established in connection with commercial banks have been discontinued as agricultural conditions have improved. The indications are that the development of permanent agricultural-credit corporations as subsidiaries of commercial banks will be limited chiefly to a few banks which lend to livestock producers.

Credit Corporations Organized by Marketing Associations.—Another development which has been making considerable progress in the South is that of organizing agricultural-credit corporations as subsidiaries to cooperative marketing associations. With one or two exceptions, the officials of the state cooperative cotton-marketing associations have organized credit corporations through which to supply production credit to members.[1] It seems that in most cases the marketing association has supplied the initial capital for the corporation. Additional capital is acquired by some of the credit corporations by requiring each borrower to take capital stock equal to 10 per cent of his loan.[2]

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[1] Federal Farm Loan Board, *Ann. Rept.*, 1925.

[2] See BENNER, CLAUDE L., "The Intermediate Credit System," Chap. 7.

Cooperative marketing associations have several purposes in view in operating credit corporations. In the first place, the associations desire the credit corporation for the purpose of relieving members of their local debts which prevent the delivery of cotton. The member mortgages his crop to the local banker or merchant and, unless the obligations are paid off, the latter often hesitates to permit the cotton to leave the community. This situation has been one of the greatest problems of the cooperative cotton-marketing associations. The associations hope to relieve the situation: (1) by supplying production credit through the year, or (2) by lending funds on the member's equity in the cotton after it is delivered. Second, the marketing associations hope to increase their membership by offering this new credit service. Funds are offered at 6 to 7 per cent and for periods of time adapted to the farmer's turnover. Officials of the association point out that the farmer who becomes a member has access to a dependable source of cheap credit. Third, in operating the credit corporations the associations are motivated to a great extent by the desire to reduce the cost of credit to their members. In those states and communities where 10 per cent is the common bank rate and where merchants charge 12 per cent or more, a line of credit established with the agricultural-credit corporations means a very considerable reduction in the cost of credit.

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[1] The American Institute of Cooperation, "American Cooperation," 1926, Vol. II, pp. 370–384.

[2] See Benner, Claude L., "The Federal Intermediate Credit System," Appendix A. However, one of the largest corporations, the North Carolina Agricultural Credit Corporation, sold about 60 per cent of its capital stock to farmers and about 40 per cent to local bankers. Its borrowers are not required to take stock when a loan is obtained.

Loans are usually extended by these state corporations through local committees made up of members of the marketing association or through local banks. The former seems to be the most common method. Usually a local committee represents a whole county. The committee must approve all applications for loans. Special appraisers are maintained to supervise these committees and to check their recommendations. Since the operations of the corporation usually cover a whole state, the process of organizing and supervising loan committees and appraising credit risks is indeed a big problem. The Texas Cotton Grower's Finance Corporation, for instance, has recently divided the state into a few large districts over each of which one man has supervision. Loans are recommended by local committees and the district supervisor makes an investigation and reports to the office at Dallas.

The North Carolina Cotton Growers' Association has succeeded in getting the cooperation of a group of local bankers in the operation of the credit corporation. Some 58 country banks subscribed to stock in the corporation when it began operation in 1924.[1] These banks place loans for the corporation and agree to guarantee 10 per cent of the loans placed. In addition to the local banks, farmers' credit unions or credit associations have placed loans for the agricultural-credit corporations.

The total amount of credit extended to farmers through the agricultural-credit corporations of the cotton associations has been very small, comparatively. They are still in the experimental stage. Some of the associations have found the credit corporation a great help to their organization and have been able to make a financial success of its operation, while other associations have had the opposite experience.[2] The credit corporation unquestionably gives eligible borrowers an opportunity to obtain operating credit at a very satisfactory rate of interest. It seems that its future development depends chiefly upon the demand for its service.

Independent Credit Corporations.—The third type of agricultural-credit corporation is the independent organization. While a few corporations have been organized by farmers themselves, such organizations have been looked upon as impracticable. In fact, the Federal Farm Loan Board has discouraged this type of organization. The capital is too small and, as a rule, farmers are not good bankers. The one important class of independent agricultural-credit corporations is the livestock loan

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[1] For a detailed discussion of the operations of the North Carolina Agricultural Credit Corporation, see Claude L. Benner, *op. cit.*, Appendix A.

[2] See The American Institute of Cooperation, "American Cooperation," 1926, Vol. II, pp. 370–384.

TABLE III.—FINANCING INSTITUTIONS WHICH HAD REDISCOUNTED WITH FEDERAL INTERMEDIATE-CREDIT BANKS UP TO DEC. 31, 1926[1]

Bank	State banks	Savings banks	National banks	Trust companies	Agricultural-credit corporations	Livestock loan companies	Any other	Total
Springfield	..	..	1	..	6	..	..	7
Baltimore	11	..	1	2	13	..	..	27
Columbia	18	..	1	..	47	..	..	66
Louisville	2	..	1	..	2	1	..	6
New Orleans	2	..	..	..	14	1	..	17
St. Louis	11	..	..	..	29	4	..	44
St. Paul	25	1	1	..	124	1	..	152
Omaha	28	1	2	1	50	13	1	96
Wichita	35	..	2	1	37	5	..	80
Houston	4	..	..	2	1	24	..	31
Berkeley	1	..	..	..	4	5	..	10
Spokane	2	..	..	..	11	7	1	21
Total	139	2	9	6	338	61	2	557

[1] Data supplied by the Federal Farm Loan Board.

TABLE IV.—REDISCOUNTING INSTITUTIONS, DEC. 31, 1926

Bank	Liquidated	Closed, other causes	Inactive	Active	Total
Springfield	2	..	..	5	7
Baltimore	..	7	1	19	27
Columbia	16	1	5	44	66
Louisville	1	1	1	3	6
New Orleans	..	2	..	15	17
St. Louis	5	8	2	29	44
St. Paul	44	..	29	79	152
Omaha	28	37	..	31	96
Wichita	44	13	16	7	80
Houston	5	8	4	14	31
Berkeley	..	1	1	8	10
Spokane	..	10	1	10	21
Total	145	88	60	264	557

[1] Data supplied by the Federal Farm Loan Board.

company discussed on pp. 242 to 251. Livestock loan companies may operate on a sufficiently large scale to make a success of the business. The normal development of such companies, since 1900, indicates that there is a real place in our financial system for such organizations. The federal intermediate-credit banks have simply supplied such organizations with machinery through which to sell livestock paper.

Direct Loans to Cooperative Marketing Associations.—In addition to rediscounting notes for financial institutions, the federal intermediate-credit banks make direct loans to farmer's cooperative marketing associations. From the date of organization to the end of 1925 more than two-thirds of the total credit extended by these banks was obtained by cooperative marketing associations. Loans are made on the basis of warehouse receipts on the commodity being marketed by the association. During 1923, 1924, and 1925, loans based on cotton amounted to about 40 per cent of all intermediate-credit bank loans to cooperative associations; loans on tobacco, from 35 to 40 per cent; and of the remaining 20 per cent, about 11 per cent was made on raisins and prunes, and about 6 per cent on wheat. The remaining 3 per cent of the loans was distributed among smaller associations handling wool, rice, peanuts, and other minor products.

The intermediate-credit banks assist in carrying or financing farm commodities through the period of "orderly marketing." The farmer is usually unable to wait for his returns throughout the combined production period and the orderly marketing period. Proverbially he is "broke" at harvest time. Hence, it is necessary for the marketing association to make at least a partial payment on the products when they are delivered. One purpose of the intermediate-credit banks is to supply the funds with which the cooperatives can make this advance. Of course, the commercial banks are supplying a large share of this marketing credit, but in many instances commercial banks have been slow in financing cooperative marketing associations. Moreover, marketing associations often require loans in such amounts and for such long periods of time that they are undesirable for commercial banks.

It has been the policy of the Federal Farm Loan Board to restrict the operations of intermediate-credit banks to loans which are not well adapted to commercial banking. The new system of banks is designed as a supplement to commercial banks, and not as a competitor. This does not mean, however, that there is no competition between the two systems of banks in supplying credit to cooperative marketing concerns. The latter will naturally obtain credit where they can get it to best advantage.

Briefly, the intermediate-credit banks have rendered the following important services through loans to the cooperative marketing associations: (1) they have made available an adequate supply of funds for the longer terms; (2) they have established confidence in the cooperatives, which has induced greater liberality among commercial bankers in financing cooperative marketing; and (3) they have reduced the cost of credit to marketing associations by offering loans at $4\frac{1}{2}$ to 5 per cent interest.

3. Making Loans

The intermediate-credit banks make loans and rediscount notes for amounts ranging from \$100 to more than \$1,000,000. Credit is extended over a wide territory and personal acquaintance with the farmers who ultimately use the funds is impossible. Hence the plain personal notes of borrowers are not acceptable. Additional security is required.

Security Required by Intermediate-credit Banks.—Direct loans to cooperative marketing associations are based strictly on warehouse receipts for staple and marketable commodities, or chattel mortgages on livestock in case of livestock cooperative marketing associations. The commodity must be non-perishable and readily salable. The warehouse receipts must be issued by a standard warehouse, *i.e.*, a warehouse licensed and bonded under the Federal Warehouse Act or under approved state warehousing laws. When commodities are stored in a standard warehouse they are insured against fire and are subject to very little depreciation from the weather. Under such conditions the intermediate-credit bank may advance 75 per cent of the sale value of the produce. The bank not only requires a 25 per cent margin of safety, but it may require additional security in case the margin is decreased by falling prices.

Farmers' notes rediscounted by intermediate-credit banks are sometimes secured by chattel mortgages on livestock or equipment, as well as the indorsement of the subsidiary financing institution. In case chattels are not available or the chattel mortgage is not convenient, a financial statement of the farmer's business is required. In all cases indorsement is required. To the inexperienced, it may seem that the indorsement of the local banker offering the paper would be wholly sufficient. He has advanced his own funds on the note and is willing to bind his bank by an indorsement. Banking experience indicates, however, that banker indorsements are often worthless. The high mortality among country banks since 1920 has emphasized this fact. Hence intermediate-credit banks go back to the original note and investigate the chattel mortgage or analyze the financial statement of the borrower.

Length of Term of Loans.—Although the law specifies the length of term of loans and rediscounts of intermediate-credit banks as ranging from six months to three years, in practically all cases the term has been restricted to six months to one year, with a provisional agreement for renewal up to three years in case of necessity. With the exception of stocker and dairy cattle loans, the one-year term is entirely sufficient under ordinary conditions. From the standpoint of the original borrower, a rediscount for six months means six months plus the length of time the local financing institution has held the note. That is, the local banker may make a loan for six months and rediscount it for six months, making a complete term of one year.

In most cases, notes are repaid in lump sum at the end of the rediscount period. An exception has been made, however, in the case of dairy loans. The Federal Farm Loan Board has ruled that notes on dairy herds may be repaid in monthly installments. This permits the dairyman to pay for his cows from the proceeds of cream checks.

Another instance of special effort to adapt the term of loans to the needs of farmers is the practice of some of the agricultural-credit corporations associated with cooperative marketing associations of supplying a "line of credit" for the year. The Texas Cotton Growers' Finance Corporation, for instance, arranges for a series of advances through the producing season. Under this practice the borrowing member not only avoids the necessity of paying interest throughout the year on one or two large loans, but also may have loans extending beyond the harvesting period. The latter is a particular advantage since payment for the crop is received at intervals during the year following harvest. In paying off the loans the borrower simply permits the credit corporation to deduct the amount of the notes from the periodical payments of the marketing association.

Interest Rates.—As has been mentioned above, no subsidiary financing institution may charge the original borrower more than 1½ per cent more than the rediscount rate of the intermediate-credit bank, except that under certain conditions a 2½ per cent margin is allowed on livestock loans. The rate which the farmer pays then depends upon the rediscount rate of the intermediate-credit bank. This rate in turn depends largely upon the rate which must be offered on intermediate-credit bank bonds. The intermediate-credit banks are allowed a maximum margin of 1 per cent between the rate on bonds and the rediscount rate. Since bonds have been issued at 4½ per cent, it would be presumed that the rediscount rate has been 5½ per cent. Due to the fact that the bonds have sold at a premium, however, the intermediate-credit banks have rediscounted notes at 5 per cent a large part of the time they have been in operation. This means that the farmer pays 6½ per cent on loans.

Farmers obtain credit at a considerably lower rate through direct loans to cooperative marketing associations. There is no margin to be paid to a local financing institution. Moreover, the rate charged by intermediate-credit banks on direct loans is ordinarily less than the rediscount rate. During a large part of 1925, for instance, the rediscount rate was 5 per cent, while the rate on direct loans to cooperative marketing associations was 4½ per cent. The reason given by the Federal Farm Loan Board for this difference is that loans to cooperatives are ordinarily made for considerably shorter terms than are rediscounts to subsidiary financing institutions. The shorter term bonds can be sold at a lower rate and, therefore, the rates on loans are lower.

Lending Power.—Broadly speaking, the lending power of the federal intermediate-credit system is limited only by the market for intermediate-credit bank bonds. The Agricultural Credits Act, however, limits the amount of bonds outstanding at any one time to ten times the amount of capital and surplus of the intermediate-credit banks. Also, the Agricultural Credits Act and the Federal Farm Loan Board have placed certain limits on the amounts which can be lent by institutions rediscounting with intermediate-credit banks. Maximum ratios are established between loans and the capital and surplus of the bank or corporation. First, the amount advanced to any one individual is limited to 20 per cent of the lending bank's capital and surplus, except in the case of loans on warehouse receipts or chattel mortgages on livestock. In the latter instance, the loan may be equal to 50 per cent of the capital and surplus of the local financing institution.[1] Second, the total loans of the subsidiary financing institutions are restricted as follows: (1) agricultural-credit corporations may not lend more than ten times the amount of their capital and surplus; (2) commercial banks may not rediscount further with intermediate-credit banks if such new rediscounts increase the total liabilities, other than deposit liabilities, to more than twice their capital and surplus.

The aim of such restrictions is twofold: to protect the intermediate-credit bank and to compel the use of local capital to a reasonable extent. The larger the capital and surplus of the local bank in relation to its loans the more significant will be its indorsement. The provision permitting loans up to ten times the capital and surplus of agricultural-credit corporations may be criticized as being entirely too liberal. There is danger of overexpansion of loans, since such a large percentage of the funds of the corporations are supplied by the intermediate-credit banks. This is particularly true with credit corporations operated with the minimum capital of $10,000. Another obvious defect is the failure of the Agricultural Credits Act to require the accumulation of reserves and surplus. The small ratio of capital and surplus to the total loans of agricultural-credit corporations is all the more serious because of lack of supervision. Unlike state and national banks, they are neither supervised by state banking departments nor by the Comptroller of the Currency. Adequate supervision by the intermediate-credit bank is almost impossible. As one writer has pointed out, this means that the intermediate-credit banks must base their rediscounts largely on their own credit analysis of the individual loans rather than on the reliability of the indorsing bank.[2] Nevertheless, it is the aim of the provision for maximum loans to protect the rediscounting bank.

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[1] The 20 and 50 per cent requirements are applicable only in case no maximum is set by the laws of the state in which the institution is operating. It was pointed out above that national banks may make individual loans amounting to only 10 per cent of their capital and surplus. Limits for state banks are set by state laws. Hence the 20 and 50 per cent provisions above have reference chiefly to agricultural-credit corporations.

[2] BENNER, CLAUDE L., *op. cit.*, pp. 218–219.

Also, the requirement that a maximum proportion of capital should be involved in the operation of these new agricultural-credit agencies is a matter of good banking policy. If the loan business of the community is not sufficiently attractive to induce the investment of local capital, there is little inducement for outside capital. This principle is recognized in the operation of the federal reserve banks and the federal and joint stock land banks. In the case of the federal reserve banks, a very large percentage of the lending power is supplied by local capital. The local farm-loan associations own the capital stock of the federal land banks and are responsible for the amount of their stock in addition. Joint stock banks must supply a minimum of $250,000 of their own capital. From the standpoint of sound banking policy it seems to be only a question of whether intermediate-credit banks require enough local capital.

4. Selling Securities

Intermediate-credit banks make their loans chiefly with borrowed funds. They are middlemen between the local farm financing institutions and the great investment centers. A very large share of their loanable funds is obtained by selling debenture bonds based on farmers' notes; a much smaller share is obtained by rediscounting notes with federal reserve banks; and the remainder is supplied from their capital and surplus. The Agricultural Credits Act provides for the sale of notes on the open market, but this method has not been employed during the first few years of operation and probably will never be used extensively.

On Dec. 31, 1924, the debentures outstanding amounted to about 80 per cent of the total loans and rediscounts of the twelve banks, and about 10 per cent was represented by rediscounts with federal reserve and other intermediate-credit banks. On the same date, in 1925, approximately 75 per cent of the total loans and rediscounts of the banks was represented by bonds and about 2 per cent by rediscounts.

The Intermediate-credit Bank Bond.—Farmers and farmers' marketing associations furnish the raw material from which intermediate-credit bank bonds are produced. With the supervision of the Federal Farm Loan Board, the banks manufacture a product which is salable in the investment market. Just as the miller changes the form of wheat for the consumer's market, so the intermediate-credit bank changes the form of farmers' notes for the investment market. The miller buys wheat and sells flour; the bank buys farmers' notes and sells the intermediate-credit bank bond, a new and different kind of product. Essentially, the intermediate-credit bank's manufacturing process is as follows: (1) a large number of farmers' notes are thrown together and turned over to a trustee, the farm-loan registrar, for safekeeping; (2) the Bureau of Printing and Engraving at Washington prints a standard form of bonds for an amount equal to the total of farmers' notes in the hands of the trustee; (3) officials of the intermediate-credit bank sign the bonds. The last step not only makes the issuing bank liable to the full extent of its assets, but the other eleven intermediate-credit banks automatically become liable to the full extent of their assets in case of default of the issuing bank. Herein lies the explanation of the manufacturing process. Since the intermediate-credit bank officials have used such care in choosing the individual notes which become the basis for a bond issue that they are willing to guarantee the bonds with their own capital and surplus, the public accepts the bonds as a safe investment. The soundness of the bonds depends primarily, of course, on the policy of the banks in choosing their notes—that is, their loan policy. But since intermediate-credit banks are closely supervised by the Federal Farm Loan Board and their loan policy is well known to investors, the latter are in position at all times to pass judgment on the safety of the bonds. Supervision by a federal board guarantees a high degree of standardization in the loan policies of the twelve banks. Ordinarily, the investor cares little about what particular bank issued the bonds he is buying. His interest lies chiefly in the length of term of the bond, the interest rate it pays, and the brand: "Intermediate-credit Bank Bond."

The Sale of Bonds.—A very small percentage of the bonds are sold by the intermediate-credit banks themselves. The Federal Farm Loan Board has provided a fiscal agency for this purpose.[1] The fiscal agent uses two methods in selling bonds: direct sale to investors and indirect sale through large investment banks. The direct method has been used in the sale of debentures of less than one-year maturities, while the indirect method has been used in the sale of bonds of longer maturities.[1] Practically all of the intermediate-credit bank bonds are sold directly or indirectly to commercial banks of the larger cities of the country. A few of the banks sell the bonds in turn to their customers, but the indications are that the total volume of bonds so disposed of is insignificant.

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[1] See Chap. XIII.

During the first two years of operation, bonds were issued at the uniform rate of 4½ per cent, but most of the issues were sold above par. They have been exceptionally well received, particularly when it is considered that they are new in the investment markets. Their prompt reception is due chiefly to their elemental soundness and the fact that they are exempt from taxation. These qualifications immediately placed them in competition with short-term securities of the very best type, such as trade acceptances, bankers' acceptances, and United States Treasury Certificates.

Rediscounting Notes.—The Federal Reserve Act has been amended to permit federal reserve banks to rediscount notes for intermediate-credit banks.[2] During 1923, 1924, and 1925, federal reserve banks rediscounted notes amounting to about $8,000,000 for the Spokane, Berkeley, and Columbia intermediate-credit banks. This is a small amount when compared to the total of about $175,000,000 obtained by the twelve banks through the sale of bonds. However, the privilege of rediscounting with federal reserve banks is more important than the figures indicate. In the first place, it gives the intermediate-credit bank a direct connection with the great commercial credit reservoirs of the country. Although intermediate-credit bank bonds have found a ready market during the few years of their existence, times will undoubtedly come when their sale will be more difficult. In periods of depression, the rediscount privilege will prove a boon to intermediate-credit banks in supplying funds for the agricultural industry. Also, the privilege of rediscounting with federal reserve banks alleviates, in part at least, the plight of the small state banks which are not eligible for membership in the federal reserve system.[1] These banks may now establish indirect connections with the federal reserve banks by rediscounting with intermediate-credit banks.

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[1] See BENNER, CLAUDE L., *op. cit.*, Chap. 10. During the first two years of operation about 90 per cent of the total amount of bonds issued by intermediate-credit banks were issued for terms of six months or less. The remaining 10 per cent had maturities of one, two, and three years.

[2] Federal reserve banks may assist in financing intermediate-credit banks in two other ways: (1) they may buy their bonds of maturities of six months or less; and (2) they may buy intermediate-credit bank acceptances on the open market. A few federal reserve banks have bought a very limited amount of debentures, but no acceptances have been bought. These methods of financing may be used more in the future, but during the first few years of operation of the intermediate-credit banks they have scarcely been necessary since commercial banks have supplied a ready market for debentures.

In the second place, the privilege of rediscounting with federal reserve banks is very convenient for the intermediate-credit banks, even though their bonds are readily salable. Bonds are issued in large lots on the basis of estimated requirements of the banks, but sometimes their needs are underestimated. The time required to issue and sell another group of bonds is such that the banks would be handicapped in carrying on their daily lending and rediscounting operations. Thus the privilege of rediscounting with the federal reserve banks lends a degree of flexibility to the intermediate-credit banking system which would be impossible if bond sales were their sole source of funds.

In this connection, additional flexibility in moving available funds is provided in that one intermediate-credit bank may rediscount the notes of another. If the Spokane Bank, for instance, should have overestimated its requirements and have surplus funds on hand, it may rediscount notes for the Houston Bank which has underestimated its requirements. Also, intermediate-credit banks may use any surplus funds on hand in the purchase of bonds of other intermediate-credit banks.

Questions and Problems

1. Commercial banking laws could well have been amended so that livestock loan companies and the intermediate-credit banking system would have been unnecessary. Criticize this statement.
2. Since commercial banks supply practically all of the funds for livestock loan companies and intermediate-credit banks, why not eliminate the latter institutions and let farmers and stockmen obtain the loans directly from commercial banks?
3. Describe the usual credit analysis for livestock loans.
4. What is the meaning of "standardization of livestock paper?" How can standardization be achieved and what are its advantages?

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[1] See Chap. XI.

5. Describe the various methods by which the individual farmer might arrange to take advantage of the low rate of interest charged by the intermediate-credit banks.

6. What is your opinion of the future development of agricultural-credit corporations organized by commercial bankers?

7. Explain the purposes of agricultural-credit corporations which are operated as subsidiaries to cooperative marketing concerns.

8. From the standpoint of sound banking policies, what are some of the possible dangers involved in the methods of agricultural-credit corporations as they are operated at present?

9. Referring to Tables III and IV discuss the following:
    - *a.* Account for the fact that state banks have rediscounted with intermediate banks more than have national banks.
    - *b.* Explain the distribution of agricultural-credit corporations among the twelve districts.
    - *c.* Explain the high percentage of liquidation of rediscounting institutions in the St. Paul, Omaha, and Wichita districts.

10. What are the sources of funds of the intermediate-credit banks?

11. Describe the process of issue and sale of intermediate-credit bank bonds.

12. What are the advantages to the intermediate-credit banks of the privilege of rediscounting with federal reserve banks?

13. Describe the security back of intermediate-credit bank bonds.

References for Further Reading

American Institute of Cooperation, "American Cooperation," 1926, Vol. II, pp. 370–384.

BENNER, CLAUDE L., "The Federal Intermediate Credit System," Chaps. 6 to 11; also, "Has Rural Credit Legislation Gone Far Enough and in the Right Direction?," *Journal of Farm Economics*, January, 1925.

LARMER, F. M., "Financing the Livestock Industry," Chaps. 9 to 12.

LEE, V. P., "The Intermediate Credit Banks," *Journal of Farm Economics*, October, 1925.

MITCHELL, WALDO F., "The Uses of Bank Funds," Chap. 7.

PART IV

THE COST OF CREDIT

It is generally recognized that American farmers now have fairly adequate and convenient credit facilities. The real farm credit problems henceforward will center around the cost and uses of credit. The uses of credit were discussed in Chap. IV, V, and VI. Fundamentally, the farmer who knows how to farm knows how to use credit, and a discussion of the proper use of loans leads directly into the broad and general discussion of successful farming. The problem rests primarily with the individual farmer. On the other hand, the cost of credit depends upon many forces which are external to the individual farmer. The interest rate and other charges on loans are affected by the charges made by investors, the banking costs involved in transferring purchasing power from investors to borrowers, and by the bargaining power of bankers and borrowers. These factors will be discussed in the next two chapters, with special application to deposit-bank loans.

CHAPTER XV

BANKING COSTS AND THE INTEREST RATE

The rate paid for loans in different sections of the country, or at different times, reflects the bargaining position of investors who supply the credit, of borrowers who use the credit, and of bankers who transfer loanable purchasing power. In the analysis of the factors determining the cost of farm loans the present discussion will be restricted largely to loans of commercial banks because of lack of information regarding the cost of credit obtained from other sources.[1]

According to the reports of bankers to the Department of Agriculture in 1923, the average nominal interest rate paid by farmers for short-term loans from commercial banks varied from 6.0 per cent in New York, Pennsylvania, Maryland, Delaware, New Jersey, Connecticut, Massachusetts, Vermont, New Hampshire, and Rhode Island to 9.9 per cent in Oklahoma and New Mexico. Table V indicates the average rates by geographical regions for 1914, 1921, and 1923, and Fig. 6 shows the rates by states and regions in 1923.[2]

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[1] The cost of loans obtained from federal and joint stock land banks and intermediate-credit banks was indicated in the two previous chapters. Their rates are uniform and are determined largely by the market for bonds.

[2] The nominal rate reported by bankers often does not represent the actual cost of loans. Bankers frequently use certain devices to increase the actual rate charged. First, the practice of discounting the note rather than adding the interest to the amount of the loan seems to be fairly general. *Bull.* 351, Tex. Agr. Exp. Sta., indicates that about 40 per cent of the farmers had notes discounted in 1925. Discounting seems to be more general in high-interest regions. The amount of the added charge which arises from discounting varies according to the nominal rate and the length of term of the loan. If the nominal rate is 10 per cent and the loan runs for a year the actual rate is increased to approximately 11 per cent. Second, bankers sometimes charge a bonus or commission at the time a loan is made or when a loan is renewed. The extent of this practice is unknown. Third, bankers sometimes charge a flat percentage of the loan regardless of the length of the term. Fourth, bankers often require the borrower to leave a certain percentage of the loan on deposit throughout the term of the loan. A similar practice, which is occasionally observed, is that of allowing the borrower to withdraw only a certain percentage of the loan each month during the production period.

TABLE V.—AVERAGE INTEREST RATES TO FARMERS IN 1914, 1921, AND 1923[1]

Region	1914	1921	1923
New England	6.13	6.35	6.08
Middle Atlantic	5.85	6.00	6.00
East North Central	6.68	6.97	6.80
West North Central	8.24	8.34	8.14
South Atlantic	7.07	7.21	7.10
East South Central	8.50	7.81	7.61
West South Central	10.33	9.53	9.50
Mountain	10.49	9.64	9.40
Pacific	8.79	8.79	7.98

[1] Average rates by states were compiled by the Division of Agricultural Finance, Bureau of Agricultural Economics. Average rates by regions are calculated by weighting state averages according to the number of farms in each state Jan. 1, 1920.

It will be noted in Fig. 6 that farmers in the 20 states east of Minnesota, Iowa, and Missouri and north of Tennessee and South Carolina paid an average rate of 7.0 per cent or less in 1923, while in these states and all states south and west they paid 7.5 per cent or more. The average for the "state averages" of the former group of states is 6.25 per cent, while that for the latter group is 8.69 per cent. That is, the reported rates are approximately 40 per cent higher in the 28 states south and west than in the 20 states north and east. Loans which would cost $100 in the northeast would cost $140 in the states to the south and west.

The annual drain upon the agricultural industry in the Southern and Western states due to the extra 2 or 3 per cent interest on operating loans is enormous. If we assume that one-half of the total estimated ($4,000,000,000)[1] short-term indebtedness of the country exists in this group of 28 Southern and Western states, and that the above difference in commercial bank rates holds for rates on individual and merchant loans, the extra charge amounts to approximately $50,000,000 per year.

A variation this great in the cost of clothing, food, farm machinery, or in freight and telephone rates would seem out of the question. Yet such differences in the cost of loans seems to be accepted as a normal situation. Are loans applied in such manner and under such circumstances that they are so much more profitable in the South and West than in the North and East? Or, on the other hand, are the hazards of loans so much

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[1] See Chap. I.

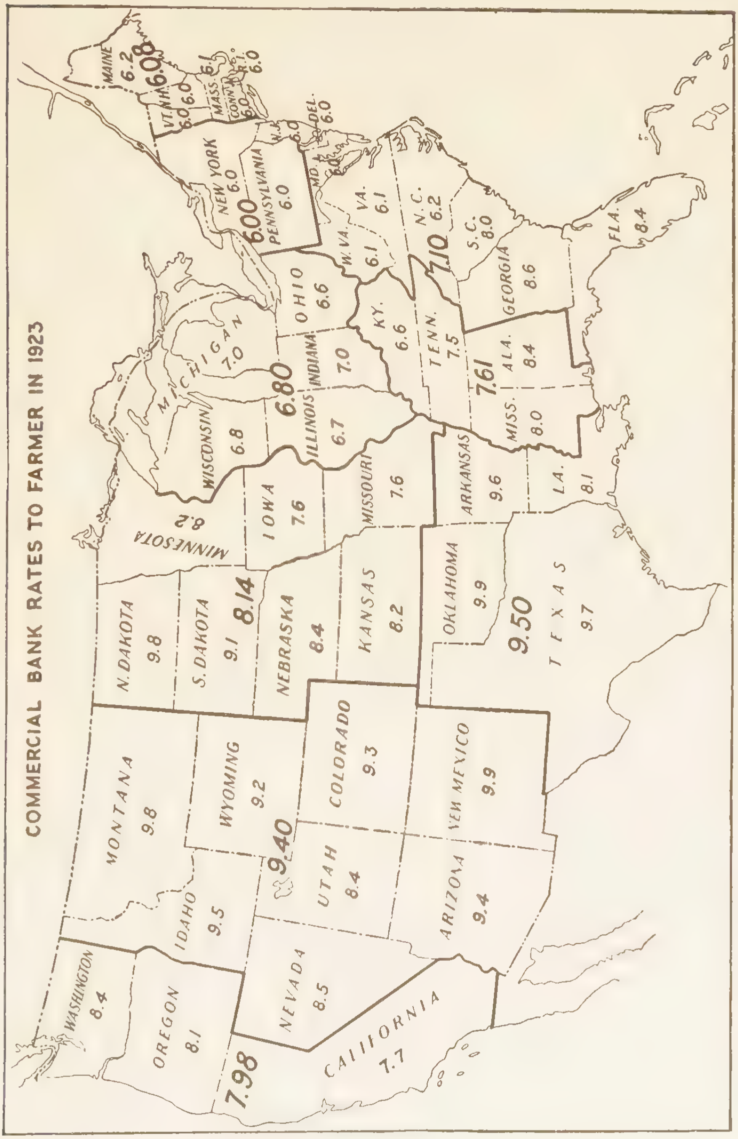

FIG. 6.—Average rates on commercial bank loans to farmers in 1923 by states and geographical divisions. Average rates by states were compiled by the Division of Agricultural Finance, Bureau of Agricultural Economics. See U. S. Dept. Agr., *Yearbook*, 1924, p. 222.

greater that the banker must charge a 40 per cent higher rate to make a reasonable profit on his investment? Possibly the bankers in the high-rate states are less efficient. Or probably there is less competition among the bankers in one section than in the other. Probably the cost of getting funds to lend is greater in the South and West.

A complete explanation of the variation in the cost of loans would of course require a detailed investigation of the situation in each of the states. Doubtless it would be discovered that one set of factors was responsible for high rates in one state while the high rates in another state would be attributable to other factors. The purpose here is to analyze and describe some of the basic factors which enter into the determination of interest rates in general, as well as the variation in rates in various sections of the country. Why do rates not vary from 10 to 15 per cent or 4 to 6 per cent instead of from 6 to 9 per cent?

At the outset it must be realized that the banker is in business to make dividends for stockholders, and that the amount of his earnings depends largely[1] on the difference between the cost of getting and dispensing loanable purchasing power and the price he gets for loans. Just as the clothing merchant buys goods and depends on selling them at such prices that he can make a return on his investment, the banker buys and sells purchasing power. Normally, the banker will of course attempt to get purchasing power at the lowest possible price and sell purchasing power in the form of loans at the highest price which he can command. The cost of loanable funds to the banker and the cost of dispensing these in the form of loans depends upon (1) the sources of funds and (2) the efficiency of the banker in performing the services incidental to the process of obtaining and dispensing funds. That bankers will not stay in business long unless they can secure an income large enough to cover costs and yield a fair return on the capital invested is evident. Over a period of time, costs plus a return on capital comparable to the return on capital in other lines of business clearly determine the lower limit of the interest charge for loans.

The upper limit of the interest charge is determined by the usefulness of credit to customers. Just where the rate actually charged will fall between these two limits depends upon the relative bargaining power of the banker and the borrower.

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[1] A very large percentage of the country banker's income is derived from loans and discounts and investments. See Table XXII.

TABLE VI.—AVERAGE COST[1] PER DOLLAR OF LOANS AND INVESTMENTS OF COUNTRY[2] NATIONAL BANKS AND THE NOMINAL RATE CHARGED FOR LOANS

State	Cost, 1914 to 1926,[3] cents	Average rate, 1923, per cent
Arizona	9.00	9.4
California	5.88	7.7
Illinois	5.08	6.7
Iowa	6.61	7.6
Kansas	6.71	8.2
Mississippi	6.48	8.0
Montana	7.71	9.8
New Hampshire	4.71	6.0
New York	4.95	6.0
North Carolina	5.49	6.2
North Dakota	8.08	9.8
Texas	7.48	9.7
Washington	6.71	8.4

[1] Cost to the banker. The cost figure includes all expenses—wages and salaries, interest on borrowed funds, interest on deposits, taxes, and "other expenses"—and the losses on loans and investments. Data on costs were compiled from *Ann. Repts.*, Comptroller of the Currency.

[2] Banks in towns and cities not designated as central reserve cities or reserve cities. The central reserve cities are New York and Chicago. Reserve cities in these states were as follows in 1926: Los Angeles, Oakland, San Francisco; Chicago (part not designated as central reserve), Peoria; Cedar Rapids, Des Moines, Dubuque, Sioux City; Kansas City (Kansas), Wichita, Topeka; Helena; Albany, Brooklyn and Bronx, Buffalo; Dallas, El Paso, Fort Worth, Galveston, Houston, San Antonio, Waco; Seattle, Spokane.

[3] Data on cost for 1920 not given.

The close relation of banking costs to the rate charged borrowers is indicated by the cost figures for country national banks.[1] Table VI shows the average cost (expenses and losses) per dollar of loans and investments[2] for country national banks of thirteen representative states for the period from 1914 to 1926, as compared with the rate which bankers reported that they charged farmers in 1923.[1] It will be noticed that the margin between the interest rate reported and the cost varied from about one-half of 1 per cent in Arizona to more than 2 per cent in Texas. The size of margin which the bank requires in order to be able to pay a given dividend on its capital, say 8 per cent, varies of course according to the volume of loans and investments in relation to the capital invested and upon the amount of income from sources other than loans and investments. The ratio of loans and investments to the capital of these banks, as well as the other sources of income will be discussed later in this chapter.

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[1] "Country bank" is used here in the technical sense in which it is used in national banking laws, *i.e.*, national banks in all towns and cities which are not reserve cities or central reserve cities.

[2] "Loans and investments" as used here includes what is sometimes called "earning assets," except that bonds bought and held as a basis for national bank notes in circulation are excluded. That is, the amount of circulation was deducted from the total of loans and discounts, stock in federal reserve bank, other stocks, bonds, acceptances, etc.

But why were banking costs almost twice as high in Arizona as in New Hampshire, New York, and Illinois? This question may be partially answered by an analysis of the cost figures. In some states the cost of banking is exceptionally high because of a high percentage of losses, in others the cost is high because of the great expense involved in paying interest on deposit accounts, and in still others the cost is high because of the small volume of business or inefficient management. These and other factors will be considered in the following analysis.

DISTRIBUTION OF EXPENSES OF COUNTRY NATIONAL BANKS

The Comptroller of the Currency requires all national banks to make annual reports of their expenses and losses. Since expenses usually arise under different circumstances from those of losses, these two items of cost will be considered separately. Expenses are divided into five classes: salaries and wages, interest and discount on borrowed money, interest on deposits, taxes, and "other expenses." Table VII indicates the percentage distribution of expenses for 1918 to 1919 and 1921 to 1926.

It will be noted that the largest single item of expense of these banks in 9 of the 13 states was that of interest on deposits. The next largest is that of salaries and wages. Taxes amount to from 6 to 15 per cent of the total expenses, while "other expenses" amount to about 18 per cent. The latter includes upkeep of building and equipment, insurance, rent, stationery, advertising, examiners' fees, and other minor expenses.

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[1] Ordinarily the rate received by bankers on bonds and commercial paper is considerably less than the average rate on all loans and investments and the local rate is placed high enough to raise the average above costs.

TABLE VII.—PERCENTAGE DISTRIBUTION OF EXPENSES PAID OUT BY COUNTRY NATIONAL BANKS IN 13 REPRESENTATIVE AGRICULTURAL STATES, 1918 TO 1926[1]

State	Expenses per dollar loans and investments, cents	Salaries and wages	Interest and discount on borrowed money	Interest on deposits	Taxes	Other expenses
Arizona	7.60	39	7	23	9	22
California	5.13	37	4	31	8	20
Illinois	4.61	31	3	38	11	17
Iowa	5.96	25	9	45	8	13
Kansas	5.98	32	4	34	12	18
Mississippi	5.75	29	8	31	15	17
Montana	6.65	30	7	37	9	17
New Hampshire	4.28	33	7	29	7	24
New York	4.42	24	4	52	7	13
North Carolina	5.22	27	13	36	8	16
North Dakota	7.48	26	6	47	6	15
Texas	6.12	36	8	24	13	19
Washington	5.72	33	4	35	9	19

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[1] Comptroller of the Currency, *Ann. Repts.* The distribution of expenses was not given prior to 1918. No report was made for 1920.

Salaries and Wages.—The importance of salaries and wages in the banking business requires some explanation. In country banks, a very large share of the salaries item goes to pay the active executive, who may perform the functions of cashier and vice president, or president. He supervises all the operations of the bank, initiates policies regarding deposit and lending accounts, and specializes in credit analyses and loans. He not only must have rather detailed knowledge of the financial status of hundreds of borrowers, but he must constantly be alert to the cash status of the bank. During one week, he may be pressed to maintain the legally required cash reserve back of deposits, while, the next week, he may be devising ways and means of lending surplus cash. He cannot profitably promote a campaign for deposits unless his loan market will absorb his surplus lending power. He cannot make loans which will overdraw his cash account. Between watching deposits, reserves back of deposits, and the amount and maturity of loans, this executive is a busy man, aside from his daily duties of analyzing credit risks and supervising the clerical work of the bank.

The other work for which salaries are paid is chiefly clerical. This work is relatively simple, but very tedious and exacting.

The executive of a typical country bank reports the following processes of a check drawn on the bank: (1) cashed, or placed on deposit; (2) listed and delivered to bookkeeper; (3) filed under letter; (4) arranged alphabetically; (5) listed by bookkeeper; (6) posted on ledger; (7) posted on statement; (8) marked paid; (9) filed under name; (10) checks counted preparatory to sending out statement; (11) statement with checks mailed to customer. When it is realized that a large percentage of the checks handled by the country bank are very small,[1] some conception can be had of the clerical task in handling a checking account.

In addition to the large number of small checks handled for each depositor, the country bank must maintain a large number of small accounts. The large city banker has deposit accounts in terms of thousands, tens, and hundreds of thousands of dollars, while the deposit accounts of country bankers are generally expressed in terms of dollars and hundreds of dollars. To counteract the expense involved in handling small checks and maintaining small checking accounts some country bankers are adopting the policy of making an extra charge of 50 cents or more per month. The depositor may avoid this charge by maintaining a certain average minimum deposit of, say, $50. Sometimes the banker makes the charge if the deposit goes below the specified minimum any time during the month.

Clerical work involved in the lending operations of the bank is much less than that in maintaining deposit accounts. The number of loans handled is, of course, much smaller than the number of checks handled. But the clerical processes of the loans are very similar to those of the check. The following processes as described by one banker seem to be typical: (1) note made and customer's account credited; (2) note listed; (3) recorded in loan or discount register; (4) "loans and discounts" charged on general ledger; (5) posted on liability ledger; (6) filed in note case; (7) notice mailed 10 days prior to maturity; (8) note paid and cancelled; (9) "loans and discounts" credited; (10) credit posted on liability ledger; (11) marked "paid" on discount register.

Here again the country banker deals in small units of hundreds of dollars while the large city banker deals in thousands and tens of thousands. That is, the small country banker commonly puts his clerical force through the above processes ten, twenty, or thirty times in lending $100,000, while the same amount is often placed by the large city banker in one, two, or three loans. Table VIII indicates that about 72 per cent of the loans made to farmers in Texas in 1925 were less than $300.

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[1] The average size of farmers' checks in a country national bank in Texas for three days about the middle of February, 1928, was $12.79.

TABLE VIII.—LOANS OBTAINED BY 283 TEXAS FARMERS FROM COMMERCIAL BANKS—JAN. 1, 1925 TO SEPT. 1, 1925[1]

Size of loans	Number of loans	Percentage of total number of loans
Less than $100	138	22.5
$100 to $199	204	33.3
200 to 299	99	16.1
300 to 399	46	7.7
400 to 499	19	3.1
500 to 599	51	8.3
600 to 699	7	1.1
700 to 799	9	1.5
800 to 899	4	0.6
900 to 999		
1,000 and over	36	5.8
Total	613	100.0

[1] Data obtained from schedules used as basis for preparation of Tex. Agr. Exp. Sta., *Bull.* 351. Loans made to merchants raise the banker's average size of loans considerably. Thus, for this same period about 70 per cent of the loans made to merchants by reporting bankers were $1,000 or more.

Interest Paid on Deposits.—Although competition among bankers for deposits is not very great in many of the farming communities of the country, an increasing percentage of bankers are finding it necessary to offer interest. The rate paid varies from 1, 2, or 3 per cent on demand and time deposits to 3, 4, and higher on regular savings accounts. Table VII shows that interest paid on deposits by country national banks in 13 representative agricultural states ranged from 23 per cent of the total expenses of Arizona banks to 52 per cent for New York banks. It should be realized here that the lending power of commercial banks depends chiefly on deposits, and that the payment of interest on a large percentage of total deposits greatly increases the expenses of the bank. Suppose, for instance, that all of the lending power of a bank is derived from deposits and that a rate of 4 per cent is paid on one-half of the total deposits. This would increase the expenses of this bank by 2 cents per dollar of its total loans and investments.

Place of Business and Supplies.—The third large item of expense in banking is that of maintaining the place of business and buying current supplies. This includes outlays for rent, insurance, maintenance of equipment, stationery, postage, heat, and light. These and such items as fees for periodical examinations[1] and fees to protective associations are included under "other expenses." If the tax item is included, the expenses for maintaining the place of business, for supplies, and for miscellaneous charges amount to more than one-fourth of the total expenses of the banks in 9 of the 13 states.

Interest for Outside Funds.—In emergencies the country banker obtains funds from city bankers by rediscounting notes or by direct loans. Most banks have one or more city correspondents and one of the functions of the correspondent is to supply funds. Usually, the country banker obtains a loan by pledging collateral in the form of stocks, bonds, or notes. All national banks and a few state banks which are members of the federal reserve system obtain emergency funds from federal reserve banks. Such funds are usually obtained by the process of rediscounting customers' notes, although direct loans may be obtained under certain circumstances.

Since funds are usually obtained from other banks only in emergencies, such as the crop-moving season and the latter part of the crop-producing season, the total amount paid out as interest to other banks is a very small percentage of the total expenses of the bank. For 1918 to 1919 and 1921 to 1926 it ranged from 3 to 13 per cent among the banks under consideration.[2]

VARIATIONS IN EXPENSES BY REGIONS

The figures in column I of Table IX show that banking expenses per unit of business among country national banks are almost invariably higher in the Southern and Western states than in the Northern and Eastern states. The figures in the remaining columns suggest many partial explanations of these variations. Obviously, the comparatively high expenses of North Dakota banks are due in part to the liberality of bankers in paying interest on deposits. Arizona banks have high costs in four of the five items, and the salaries and wages bill is particularly high. Texas banks seems to have the heaviest tax burden, a moderately high expense for outside funds, and a high salary and wage bill.

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[1] The standard fee for each examination of country national banks is $50. In addition, all assets above $25,000 are assessed at 3 cents per $1,000 for examination. Thus, the annual expense for two examinations for a bank of $800,000 assets would be about $150.

[2] This percentage is considered higher than normal because of the unusually large amount of interbank borrowing and rediscounting during the period of depression immediately following 1920. This item was greatly reduced by 1926. In that year the percentage of total expenses which was paid for borrowed money ranged from less than 1 to 8 per cent.

If Arizona, California, Iowa, Kansas, Mississippi, Montana, North Dakota, Texas, and Washington are grouped as Southern and Western states and Illinois, New Hampshire, New York, and North Carolina as Northern and Eastern states, the difference in expenses per unit of business is readily seen. The average for the western group is 6.27 cents per dollar of loans and investments, while that for the eastern group is only 4.63 cents. Table IX shows the average of the different items of expense in the two groups of states.

Table IX.—Average Distribution of Expenses of Country National Banks, 1918 to 1926[1]

(In cents per dollar of loans and investments)

State	Total expenses	Salaries and wages	Interest on borrowed money	Interest on deposits	Taxes	Other expenses
Arizona	7.60	2.94	0.55	1.73	0.72	1.66
California	5.13	1.88	0.22	1.61	0.39	1.03
Illinois	4.61	1.42	0.16	1.77	0.51	0.75
Iowa	5.96	1.52	0.52	2.66	0.45	0.81
Kansas	5.98	1.93	0.23	2.02	0.73	1.07
Mississippi	5.75	1.68	0.44	1.78	0.84	1.01
Montana	6.65	1.96	0.46	2.48	0.60	1.15
New Hampshire	4.28	1.39	0.31	1.25	0.31	1.02
New York	4.42	1.04	0.16	2.29	0.31	0.62
North Carolina	5.22	1.42	0.68	1.86	0.39	0.87
North Dakota	7.48	1.93	0.43	3.54	0.44	1.14
Texas	6.12	2.18	0.49	1.50	0.78	1.17
Washington	5.72	1.86	0.22	2.00	0.54	1.10
Eastern group	4.63	1.32	0.33	1.79	0.38	0.82
Western group	6.27	1.99	0.40	2.15	0.61	1.13
Per cent higher in west	35	51	21	20	61	38

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[1] Data not reported for 1920. See Comptroller of the Currency, *Ann. Repts.*

About two-fifths of the difference in expenses between these two groups of states is due to the salaries and wages item, and about one-fifth to the "other expenses" item, which is largely for maintenance of the place of business. On the basis of general principles of business it would seem that the larger the total volume of loans and investments the bank has, the lower would be its expenses for salaries and wages and maintenance of the place of business. The bank which operates on a large scale should be able to use its employees to better advantage and to have a lower overhead cost per unit of business. Table X shows the relation of volume of loans and investments to expenses.

Table X.—Average Volume of Loans and Investments and Average of Certain Items of Expense of Country National Banks, 1918 to 1926[1]

(Expenses in cents per dollar of loans and investments)

State	Volume of loans and investments (in thousands)	Total expenses	Salaries and wages	Other expenses
Arizona	995	7.60	2.94	1.66
California	977	5.13	1.88	1.03
Illinois	822	4.61	1.42	0.75
Iowa	625	5.96	1.52	0.81
Kansas	481	5.98	1.93	1.07
Mississippi	1,383	5.75	1.68	1.01
Montana	556	6.65	1.96	1.15
New Hampshire	900	4.28	1.39	1.02
New York	1,492	4.42	1.04	0.62
North Carolina	1,405	5.22	1.42	0.87
North Dakota	422	7.48	1.93	1.14
Texas	533	6.12	2.18	1.17
Washington	839	5.72	1.86	1.10
Eastern group	1,155	4.63	1.32	0.82
Western group	757	6.27	1.99	1.13

Although expenses for salaries and wages and general expenses of the banks do not vary in the same proportion that the volume of business varies, in most cases there seems to be a fair degree of correlation. The Arizona banks are the big exception to this rule. They have a comparatively large volume of loans and investments and at the same time the highest cost per unit of business.

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[1] Comptroller of the Currency, *Ann. Repts.* Data not given for 1920.

Other factors which may cause variations in the expenses for employees and maintenance of the place of business are the efficiency of the management and the clerical force of the bank. Are country bankers in the South and West less efficient in handling the clerical work of the bank and in purchasing supplies and maintaining equipment and other property? While this seems to be the case in some of the states, definite conclusions on this point must be based upon more thorough studies than the above data will permit.

The wide variation in taxes from 0.31 cents per dollar of loans and investments in New York and New Hampshire banks to 0.84 cents in Mississippi banks is explained in part by the volume of business and in part by state tax policies.[1] In spite of the relatively large size of the banks in Mississippi and Arizona the tax charge per dollar of loans and investments is very high. Montana banks on the other hand have the smallest volume of loans and the tax is considerably below the average for all the states. The average volume of loans of North Carolina banks is approximately the same as that of Mississippi banks, yet the tax rate is enough higher in the latter state to account for almost one-half of 1 per cent interest charged on loans.

Figures for national bank failures[2] during the period from 1921 to 1926 indicate that the smaller banks have greatest difficulty in meeting their costs during a period of financial stress. Thus, the average capital, surplus, and undivided profits of the 31 country national banks which failed in Iowa during this 6-year period was $57,935, while the average for all country national banks in the state was $108,680. In Montana, 53 country national banks failed during this period; their average capital, surplus, and undivided profits was $52,736, while the average for the state was $99,756. In Texas, the figures were $94,792 and $147,000, respectively; in North Dakota, $30,875 and $64,800. While factors other than volume of business entered into these failures, the high overhead costs involved in small banks was undoubtedly an important factor.

The variation of expenses for interest on deposits[1] from 1.25 cents per dollar of loans and investments for New Hampshire banks to 3.54 cents for North Dakota banks is explained chiefly by the degree of competition among bankers for deposits. In a zealous attempt to obtain a large volume of deposits, bankers in many of the Western states have loaded themselves with enormous interest bills. This item alone accounts for 2.00 cents or more per dollar of loans and investments in Washington, Iowa, Kansas, Montana, and North Dakota. Assuming that other conditions are equal, the North Dakota bankers would find it necessary to charge a rate on loans 2 per cent higher than Texas bankers in order to be able to pay their interest bill for deposits.

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[1] See Table IX.

[2] Comptroller of the Currency, *Ann. Repts.*

It might be maintained that expenses for interest on deposits are high in these states because of the scarcity of loanable funds in those sections of the country. But similar conditions of scarcity seem to prevail in Texas, Arizona, and California where this charge ranges from 1.50 to 1.73 cents. On the other hand, the country bankers of New York, a state which has long had a stable agricultural population and where presumably funds are far more plentiful, pay a larger proportion of their total expenses for interest on deposits than any of the other thirteen states under consideration. The payment of interest on deposits seems to be largely a matter of competition among the banks for the loanable funds of the community. Such competition may occur as readily in an old and well-developed community as in a new and undeveloped community. In fact, the number of banks may be so great in relation to the total banking business in the community as to result in an artificial scarcity of loanable funds. That is, the total banking business of the community is small in relation to the number of banks. Doubtless, this situation has existed and still exists in many of the Western states.

Interest paid for funds borrowed from correspondent banks and federal reserve banks is a relatively small item of expense among country bankers. It was less than one-half of 1 per cent of the total loans and investments of the country national banks in ten of the thirteen states from 1918 to 1926, a period in which interbank borrowing was exceptionally extensive. This item of expense might be expected to be higher in the newer states which are developing most rapidly and in which loanable funds are relatively scarce, but the figures in Table IX do not altogether substantiate this assumption. The total expenses for these loans are too low to account for any great variation in the total expenses of most of the banks. It is equal to the total difference, however, between the expenses of the North Carolina and Illinois banks.

VARIATIONS IN LOSSES BY REGIONS

Bankers are sometimes unable to collect loans and they experience losses through a decrease in the market value of stocks, bonds, and other securities which they have bought. Such losses are in reality costs of the banking business and must be deducted from gross earnings before dividends can be declared. The most common explanation of the higher interest rates paid by farmers in the Southern and Western states is that losses are much greater in these states than in the Northern and Eastern states. Table XI shows the losses per dollar of loans and investments of country national banks in representative agricultural states for the period from 1914 to 1926, excluding 1920.

Table XI.—Expenses, Losses, and Total Costs of Country National Banks, 1914 to 1926[1]

(In cents per dollar of loans and investments)

State	Average total expenses	Losses[2]	Total cost
Arizona	7.24	1.76	9.00
California	5.05	0.83	5.88
Illinois	4.47	0.61	5.08
Iowa	5.74	0.87	6.61
Kansas	5.82	0.89	6.71
Mississippi	5.68	0.80	6.48
Montana	6.41	1.30	7.71
New Hampshire	4.04	0.67	4.71
New York	4.30	0.65	4.95
North Carolina	5.07	0.42	5.49
North Dakota	7.31	0.77	8.08
Texas	5.98	1.50	7.48
Washington	5.66	1.05	6.71

[1] Data not given for 1920. See Comptroller of the Currency, *Ann. Repts.*

[2] Recoveries on losses not deducted for 1914, 1915, 1916, and 1917, since they were not reported by the Comptroller of the Currency prior to 1918.

It will be noted that most of the banks whose expenses are above the average also have greater losses than the banks with low expenses. Arizona banks head the list with heaviest losses and are second in expenses. Texas banks are second in losses and rank fourth highest in expenses. North Carolina banks have the smallest losses and have below the average of expenses. The average losses for banks in the Northern and Eastern states of Illinois, New Hampshire, New York, and North Carolina is 0.57 cents per dollar of loans and investments, while the average of their expenses is 4.63; the average losses of banks in the nine Southern and Western states is 1.09 cents, and the average of their expenses is 6.27.

Obviously, the variations in banking expenses are considerably more significant in explaining the difference in interest rates charged in the different sections than are losses. The greatest difference in the losses of the banks in any two states is 1.34 cents, while the difference in expenses of the banks of these two states is 2.17. The difference between the average losses of southern and western banks and northern and eastern banks is 0.52 cents, while the difference in expenses is 1.64. These figures indicate that banking expenses are two or three times as important in explaining the variation in total banking costs as are losses.

It is popularly assumed that the greater losses of southern and western banks are attributable almost entirely to the uncertainty of industry and agriculture in those sections. As a matter of fact, there are three primary causes for losses in banking: (1) slack methods of making credit analyses for loans; (2) poor investments; and (3) uncertainty of income of the borrowers. The first two causes of losses are matters of banking efficiency. The extensive practice of substituting the chattel mortgage for a real credit analysis has undoubtedly tended to increase bank losses.[1] Likewise, investments in speculative securities and in mortgages based on overpriced real estate have caused enormous bank losses during the period under consideration.

Losses due to the uncertainty of income of borrowers are frequent in the extreme cases of semi-arid regions of the West and Southwest and in a limited area of river-bottom land in the South. Losses occur in some regions of the South and West because of the farming practice known as the "one-crop system." The chief difficulty with the one-crop system from the standpoint of the banker, however, is that it sometimes results in "slow" paper. If the farmer's one crop fails, his notes must be carried over to another year.

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[1] See Chap. VIII.

The uncertainty of the price of farm products is often a greater source of worry for the banker than is the uncertainty of production. During the period under consideration the country bankers in the grain, cotton, and cattle regions suffered enormous losses because of their inability to anticipate the time at which the fall in prices was coming, or their unwillingness to face the facts.[1]

VARIATIONS IN COST OVER A PERIOD OF TIME

In discussing the relation of banking costs to interest rates charged borrowers, it is significant that during the period from 1914 to 1926 costs varied widely while interest rates were relatively constant. Table XII shows the variation in expenses per dollar of loans and investments of country national banks during this period. Table XIII shows the variation in losses, and Table XIV shows combined expenses and losses, or the total cost per dollar of loans and investments.

TABLE XII.—EXPENSES OF COUNTRY NATIONAL BANKS, 1914 TO 1926, EXCLUDING 1920[1]
(In cents per dollar of loans and investments)

State	1914	1915	1916	1917	1918	1919	1921	1922	1923	1924	1925	1926
Arizona	5.60	5.78	6.46	5.69	6.14	6.48	8.93	8.26	7.61	7.53	7.65	7.37
California	4.47	4.80	5.16	4.51	3.88	4.51	5.31	5.50	5.26	5.48	5.70	5.10
Illinois	4.04	4.13	4.20	3.85	3.74	3.94	4.84	4.96	4.81	4.76	4.79	4.71
Iowa	4.98	5.10	5.31	4.99	5.13	4.96	6.92	6.40	6.02	6.06	6.14	5.91
Kansas	5.39	5.27	5.34	5.15	5.09	5.23	6.51	6.04	6.27	6.36	6.32	5.92
Mississippi	5.49	5.81	5.51	4.87	4.70	4.76	6.65	6.17	5.74	5.81	5.99	5.74
Montana	5.43	6.09	6.01	5.53	6.03	6.43	8.12	7.41	6.78	6.26	6.05	5.59
New Hampshire	3.09	3.43	3.45	3.36	3.56	3.68	4.47	4.34	4.31	4.60	4.45	4.52
New York	3.71	3.78	4.20	3.84	4.06	3.90	4.53	4.54	4.42	4.48	4.57	4.56
North Carolina	3.84	4.50	4.39	4.64	4.46	4.52	6.18	5.46	5.01	5.22	5.29	5.21
North Dakota	6.98	7.15	7.11	6.73	6.89	6.54	8.45	8.21	7.85	7.92	7.19	6.70
Texas	5.33	5.80	5.66	5.30	4.95	5.28	8.35	6.32	6.23	6.03	6.04	5.70
Washington	5.57	5.65	5.62	4.84	4.75	4.89	6.41	6.16	5.83	5.95	5.71	5.63

[1] Comptroller of the Currency, *Ann. Repts.*

During the period from 1914 to 1920, the general price level of commodities in this country increased about 150 per cent. In 1926, the price level of commodities was fairly stationary at about 50 per cent higher than the level of 1914. Bankers had to pay wages and salaries somewhat in accordance with the changes in the general price level, and similarly the cost of supplies, rent, insurance, and taxes increased. The amount paid for interest on borrowed money also varied greatly. Losses decreased to a very low point in 1918 and 1919 and increased to an extremely high point in 1921 and 1922.

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[1] See GARLOCK, FRED L., "Bank Failures in Iowa," *The Journal of Land and Public Utility Economics*, January, 1926.

TABLE XIII.—LOSSES OF COUNTRY NATIONAL BANKS, 1914 TO 1926, EXCLUDING 1920[1]

(In cents per dollar of loans and investments)

State	1914	1915	1916	1917	1918	1919	1921	1922	1923	1924	1925	1926
Arizona	1.41	1.45	1.83	1.73	0.36	0.49	1.94	2.28	2.23	2.07	1.73	2.64
California	0.79	0.80	1.05	0.72	0.64	0.75	1.06	0.71	0.99	0.87	0.79	0.73
Illinois	0.56	0.67	0.49	0.44	0.42	0.41	0.59	0.54	0.69	1.05	0.68	0.57
Iowa	0.61	0.52	0.53	0.42	0.32	0.36	0.54	1.36	0.97	1.28	1.62	1.36
Kansas	0.79	0.67	0.69	0.53	0.32	0.42	0.91	0.85	1.45	1.31	1.25	1.14
Mississippi	1.39	1.13	1.08	0.74	0.22	0.33	1.20	0.98	0.88	0.50	0.89	0.79
Montana	1.43	1.41	0.96	0.68	0.54	0.61	1.45	1.76	1.58	0.65	1.54	1.00
New Hampshire	1.79	1.37	1.35	0.64	0.48	0.39	0.98	0.53	0.41	0.35	0.52	0.51
New York	0.90	1.10	1.17	0.72	0.79	0.54	0.94	0.64	0.61	0.48	0.35	0.30
North Carolina	0.30	0.55	0.74	0.63	0.23	0.21	0.31	0.43	0.63	0.37	0.40	0.44
North Dakota	0.61	0.86	0.53	0.45	0.26	0.33	0.59	0.66	0.98	1.37	1.39	0.94
Texas	1.07	1.18	1.25	0.95	0.55	0.87	2.34	2.61	2.14	1.72	1.38	1.21
Washington	1.01	1.10	1.15	0.86	0.75	0.50	0.95	1.22	1.12	1.78	1.00	0.79

[1] Comptroller of the Currency, *Ann. Repts.*

TABLE XIV.—TOTAL COST OF OPERATING COUNTRY NATIONAL BANKS, 1914 TO 1926, EXCLUDING 1920[1]

(In cents per dollar of loans and investments)

State	1914	1915	1916	1917	1918	1919	1921	1922	1923	1924	1925	1926
Arizona	7.01	7.23	8.29	7.39	6.50	6.97	10.87	10.54	9.84	9.60	9.38	10.01
California	5.26	5.60	6.21	5.23	4.52	5.26	6.37	6.21	6.25	6.35	6.49	5.83
Illinois	4.60	4.80	4.69	4.29	4.16	4.35	5.43	5.50	5.50	5.81	5.47	5.28
Iowa	5.59	5.62	5.84	5.41	5.45	5.32	7.46	7.76	6.99	7.34	7.76	7.27
Kansas	6.18	5.94	6.03	5.68	5.41	5.65	7.42	6.89	7.72	7.67	7.57	7.06
Mississippi	6.88	6.94	6.59	5.61	4.92	5.09	7.85	7.15	6.62	6.31	6.88	6.53
Montana	6.86	7.50	6.97	6.18	6.57	7.04	9.57	9.17	8.36	6.91	7.59	6.59
New Hampshire	4.88	4.80	4.80	4.00	4.04	4.07	5.45	4.87	4.72	4.95	4.97	5.03
New York	4.61	4.88	5.37	4.56	4.85	4.44	5.47	5.18	5.03	4.96	4.92	4.86
North Carolina	4.14	5.05	5.13	5.27	4.69	4.73	6.49	5.89	5.64	5.59	5.69	5.65
North Dakota	7.59	8.01	7.64	7.18	7.15	6.87	9.04	8.87	8.83	9.29	8.58	7.64
Texas	6.40	6.98	6.91	6.25	4.50	6.15	10.69	8.93	8.37	7.75	7.42	6.91
Washington	6.58	6.75	6.77	5.70	5.50	5.39	7.36	7.38	6.95	7.73	6.71	6.42

[1] Comptroller of the Currency, *Ann. Repts.*

Costs per dollar of loans and investments would have increased much more had it not been for the enormous increase during this period in the volume of loans and investments handled by each bank. Table XV shows the average volume of loans and investments per bank for country national banks in 13 states.

TABLE XV.—AVERAGE VOLUME OF LOANS AND INVESTMENTS PER BANK OF COUNTRY NATIONAL BANKS, 1914 TO 1926, EXCLUDING 1920[1]

(In thousands of dollars)

State	1914	1915	1916	1917	1918	1919	1921	1922	1923	1924	1925	1926	Increase, 1914 to 1926, per cent
Arizona	669	746	740	880	875	926	1,048	1,016	956	990	1,005	1,141	70.6
California	538	544	539	662	852	853	1,004	931	978	1,022	1,006	1,168	117.2
Illinois	493	552	523	607	710	736	814	789	829	868	889	938	90.3
Iowa	387	393	413	465	550	637	647	623	626	644	633	643	66.2
Kansas	296	321	339	392	475	506	480	489	468	457	467	506	71.0
Mississippi	492	523	556	710	914	1,133	1,272	1,314	1,371	1,563	1,640	1,859	278.0
Montana	579	552	572	635	533	537	502	507	526	548	585	709	22.5
New Hampshire	484	484	515	566	686	821	833	842	912	975	1,030	1,104	128.2
New York	930	956	1,030	1,160	1,177	1,250	1,355	1,389	1,531	1,641	1,730	1,863	100.3
North Carolina	644	611	611	691	918	1,145	1,320	1,371	1,483	1,603	1,641	1,756	172.7
North Dakota	340	272	282	333	372	430	415	402	407	404	455	488	43.6
Texas	300	289	315	365	484	524	521	550	534	552	543	553	84.3
Washington	429	426	443	574	695	800	812	727	757	924	975	1,023	138.5

[1] Comptroller of the Currency, *Ann. Repts.*

If other factors remain the same, the volume of loans and investments of banks usually increases in proportion to the decrease or increase of the price level of commodities and services dealt in by bank customers. A 50 per cent increase in the price of goods and services simply means that with the same volume of business 50 per cent more dollars are required. Then the change in price level from 1914 to 1926 may explain roughly an increase of 50 per cent in bank loans and investments. As a matter of fact, however, the volume of loans and investments of the banks under consideration here increased from about 20 per cent in Montana to about 280 per cent in Mississippi. In 6 of the 13 states the volume increased by more than 100 per cent. In five of the remaining 7 states the volume increased more than 50 per cent.[1]

TABLE XVI.—RATIO OF LOANS AND INVESTMENTS TO CAPITAL FOR COUNTRY NATIONAL BANKS, 1914 TO 1926, EXCLUDING 1920[1]

State	1914	1915	1916	1917	1918	1919	1921	1922	1923	1924	1925	1926	Net interest required to yield 8 per cent on capital	
													1914	1926
Arizona	3.85	3.95	3.90	4.94	5.58	5.80	6.22	7.21	6.50	6.79	7.30	8.56	2.08	0.93
California	3.62	3.58	3.51	4.25	5.63	5.79	6.03	5.82	4.84	6.22	5.90	6.79	2.21	1.18
Illinois	3.72	3.71	3.91	4.42	5.29	5.49	5.30	5.18	5.30	5.46	5.54	5.73	2.15	1.40
Iowa	4.22	4.15	4.36	4.75	5.51	6.20	5.58	5.60	5.66	5.92	6.14	6.20	1.90	1.29
Kansas	3.30	3.49	3.64	4.20	5.06	5.42	4.85	5.05	4.74	4.86	5.02	5.47	2.42	1.46
Mississippi	2.91	2.79	2.98	3.78	4.64	5.50	5.34	5.22	5.44	6.05	6.33	7.04	2.75	1.14
Montana	3.75	3.77	3.98	4.98	5.20	5.40	4.93	5.13	5.41	5.60	5.85	6.63	2.13	1.21
New Hampshire	2.69	2.67	2.81	2.99	3.54	4.13	3.98	3.97	4.15	4.31	4.34	4.56	2.97	1.75
New York	4.01	4.14	4.45	4.98	5.52	6.28	6.38	6.51	6.77	6.92	7.01	7.14	2.00	1.12
North Carolina	3.63	3.21	3.25	3.63	4.73	5.68	4.66	4.75	4.95	5.15	5.24	5.26	2.20	1.52
North Dakota	4.20	4.43	4.77	5.56	5.93	6.71	6.14	6.15	6.32	6.30	7.17	7.64	1.90	1.05
Texas	2.41	2.24	2.42	2.74	3.58	3.85	3.33	3.66	3.53	3.77	3.77	4.06	3.32	1.97
Washington	3.96	4.02	4.15	5.22	6.28	7.18	6.33	6.09	6.56	7.26	7.27	7.35	2.02	1.09

[1] Comptroller of the Currency, *Ann. Repts.*

In so far as the volume of loans and investments per bank increased more than the change in price levels, the customers of the banks are obviously doing a larger total volume of business in terms of goods and services. This increase in what might be called the real business per bank has been achieved in spite of the increase in the number of banks.[1]

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[1] The volume of loans and investments of the country national banks of North Dakota and Montana increased less than 50 per cent, but prices of farm products in these states were notably below the general level of prices for several years following 1920.

Concurrently with the increase in the volume of loans and investments, the ratio of loans and investments to capital increased 50 to more than 100 per cent from 1914 to 1926. Thus, in the latter part of this period the banker required only one-half to three-fourths as much net interest per dollar of loans and investments to pay a given dividend on capital as he did in 1914. Table XVI shows the ratios of loans and investments to capital during this period and the net interest required to pay an 8 per cent dividend in 1914 and 1926.

COMPARISON OF EXPENSES OF CITY AND COUNTRY BANKS

Interest rates charged by city banks are usually lower than the rates of country banks. The expenses of city banks per dollar of loans and investments are usually less. City bankers operate on a larger scale—the accounts of their customers are larger, and checks and loans are larger. Table XVII gives a comparison of the average expense per dollar of loans and investments of country banks and city banks from 1914 to 1926.

The variation in expenses between reserve city banks and country banks in Kansas and New York was negligible, while the difference in expenses in the other states accounts roughly for a variation of one-third to two-thirds of 1 per cent interest charged. Table XVIII shows the variation in the distribution of expenses in city and country banks in these seven states.

Expenses for salaries and wages per unit of loans and investments were higher in country banks in all cases during this period. The variation ranged from 0.13 cents in New York to 0.59 in Texas. In four of the seven states the tax charge was higher for country banks than for city banks and in five states the item of "other expenses" was greater for country banks. The variation of expenses among city and country banks for interest on borrowed money and deposits was irregular among the states.

Table XIX shows the relative importance of the two groups of expense items—(1) expenses of operation and overhead and (2) expenses for outside funds—in the analysis of the variation

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[1] The total number of state and national banks in these 13 states increased from 9,702 in 1914 to 10,191 in 1926.

TABLE XVII.—AVERAGE EXPENSES OF CENTRAL RESERVE, RESERVE CITY, AND COUNTRY NATIONAL BANKS, 1914 TO 1926[1]

State	Expenses per dollar of loans and investments, cents	Variation of city banks above or below country banks, cents	Index of expenses (country banks = 100)
California:			
Reserve city	4.72	−0.33	93
Country	5.05		
Illinois:			
Central reserve	3.97	−0.50	89
Country	4.47		
Iowa:			
Reserve city	5.34	−0.40	93
Country	5.74		
Kansas:			
Reserve city	5.76	−0.06	99
Country	5.82		
New York:			
Central reserve	3.68	−0.62	86
Reserve city	4.35	+0.05	101
Country	4.30		
Texas:			
Reserve city	5.46	−0.52	91
Country	5.98		
Washington:			
Reserve city	5.07	−0.59	90
Country	5.66		

[1] Comptroller of the Currency, *Ann. Repts.* Data for 1920 not given.

between city and country banks. In three of the eight comparisons in this table, the city banks had lower expenses in both groups, while in all except one the city banks had lower expenses in the first group. In California, Kansas, and Texas, the excess of expenses for operation and overhead among country banks was considerably more than enough to account for the difference in total expenses. That is, country banks in these states had relatively high operating and overhead expenses and relatively low expenses for interest on deposits and borrowed money. Expenses for operating and overhead for country banks in California averaged almost 0.86 cents higher per dollar of loans and investments than the city banks, but they retrenched suffi-

TABLE XVIII.—AVERAGE DISTRIBUTION OF EXPENSES OF CENTRAL RESERVE, RESERVE CITY, AND COUNTRY NATIONAL BANKS, 1918 TO 1926[1]

State	Expenses per dollar of loans and investments, cents	Salaries and wages		Interest on borrowed money		Interest on deposits		Taxes		Other expenses	
		Cents	Per cent	Cents	Per cent	Cents	Per cent	Cents	Per cent	Cents	Per cent
California:											
Reserve city	4.81	1.33	28	0.27	6	2.10	43	0.42	9	0.69	14
Country	5.13	1.88	37	0.22	4	1.61	31	0.39	8	1.03	20
Illinois:											
Central reserve	4.11	0.94	23	0.20	5	1.79	44	0.54	13	0.64	15
Country	4.61	1.42	31	0.16	3	1.77	38	0.51	11	0.75	17
Iowa:											
Reserve city	5.52	1.28	23	0.63	11	2.41	44	0.37	7	0.83	15
Country	5.96	1.52	25	0.52	9	2.66	45	0.45	8	0.81	13
Kansas:											
Reserve city	5.78	1.53	26	0.30	5	2.32	40	0.57	10	1.06	19
Country	5.98	1.93	32	0.23	4	2.02	34	0.73	12	1.07	18
New York:											
Central reserve	3.93	0.91	23	0.28	7	1.80	46	0.37	9	0.57	15
Reserve city	4.41	0.97	22	0.16	4	2.26	51	0.29	7	0.73	16
Country	4.42	1.04	24	0.16	4	2.29	52	0.31	7	0.62	13
Texas:											
Reserve city	5.47	1.59	29	0.35	6	1.95	36	0.60	11	0.98	18
Country	6.12	2.18	36	0.49	8	1.50	24	0.78	13	1.17	19
Washington:											
Reserve city	5.15	1.70	33	0.10	2	1.84	36	0.46	9	1.05	20
Country	5.72	1.86	33	0.22	4	2.00	35	0.54	9	1.10	19

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[1] Data not reported for 1920. See Comptroller of the Currency, *Ann. Repts.*

ciently on outlay for deposits and borrowed money to regain 0.54 cents. In Iowa and Washington, the excess expense among country banks for operation and overhead was more moderate, but their interest burden was greater than that of the city banks.

TABLE XIX.—VARIATION IN EXPENSES OF CITY AND COUNTRY NATIONAL BANKS BY GROUPS OF EXPENSE ITEMS, 1918 TO 1926[1]
(In cents)

State	Salaries, taxes, and "other expenses" per dollar of loans and investments	Variation of city banks above or below country banks	Interest on deposits and borrowed money	Variation of city banks above or below country banks
California:				
Reserve city	2.44	−0.86	2.37	+0.54
Country	3.30	......	1.83	
Illinois:				
Central reserve	2.12	−0.56	1.99	+0.06
Country	2.68	......	1.93	
Iowa:				
Reserve city	2.48	−0.30	3.04	−0.14
Country	2.78	......	3.18	
Kansas:				
Reserve city	3.16	−0.57	2.62	+0.37
Country	3.73	......	2.25	
New York:				
Central reserve	1.85	−0.12	2.08	−0.37
Reserve city	1.99	+0.02	2.42	−0.03
Country	1.97		2.45	
Texas:				
Reserve city	3.17	−0.96	2.30	+0.31
Country	4.13	......	1.99	
Washington:				
Reserve city	3.21	−0.29	1.94	−0.28
Country	3.50		2.22	

[1] Comptroller of the Currency, *Ann. Repts* Data not given for 1920.

The averages of the total expenses and the various items of expense are shown in Table XX. While the averages conceal considerable irregularities in the variations of expenses for interest on deposits in the various states, in other respects they afford a fairly accurate picture of the expense situation of city and country banks in these states.

The figures in this table show clearly the heavy expenses of country banks for operation and overhead, particularly when compared with the banks in New York and Chicago. City

TABLE XX.—AVERAGE DISTRIBUTION OF EXPENSES FOR CITY AND COUNTRY NATIONAL BANKS, 1918 TO 1926[1]
(In cents per dollar of loans and investments)

Banks	Total expenses	Salaries and wages	Interest on borrowed money	Interest on deposits	Taxes	Other expenses
Central reserve	4.02	0.93	0.24	1.80	0.45	0.60
Country	5.42	1.69	0.29	1.98	0.53	0.93
Excess expense of country banks	+1.40	+0.76	+0.05	+0.18	+0.08	+0.33
Reserve city	5.19	1.40	0.30	2.15	0.45	0.89
Country	5.42	1.69	0.29	1.98	0.53	0.93
Excess expense of country banks	+0.23	+0.29	−0.01	−0.17	+0.08	+0.04
City	4.90	1.28	0.29	2.06	0.45	0.82
Country	5.42	1.69	0.29	1.98	0.53	0.93
Excess expense of country banks	+0.52	+0.41	0.00	−0.08	+0.08	+0.11

[1] Except 1920. See Comptroller of the Currency, *Ann. Repts.*

banks have the advantage of a large total volume of loans and investments.[1] They are able to achieve particularly great economies in the use of equipment and clerical force. Also, large-scale operation permits the employment of efficient managers. Not only is the total volume of business greater, but individual loans, checks, bills, and deposit accounts are larger.

COMPARISON OF LOSSES OF CITY AND COUNTRY BANKS

The higher rate of interest charged by country bankers is often erroneously explained by the excess of losses on loans to farmers. It is said that since agricultural income is uncertain because of the uncertainties of the weather and wide fluctuations in the prices of farm commodities, country banking necessarily involves greater losses. City bank customers are merchants and manufacturers whose income is more regular and more predictable. Data compiled in this study, however, show clearly that the excess of losses by country bankers accounts for only a small portion of the higher interest rates of country banks. In only one of the seven states under consideration is the difference in losses between city and country banks very significant during the period from 1914 to 1926. In one state the losses of country banks were less than those of city banks, while in the remaining five states the losses of country banks were greater by the insignificant amounts of 0.02 to 0.17 cents per dollar of loans and investments. Table XXI shows the average losses of city and country national banks from 1914 to 1926, excluding 1920.

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[1] City banks suffer a slight disadvantage, however, in that the legal reserve for demand deposits of central reserve and reserve city banks is 13 and 10 per cent, respectively, while that for country banks is only 7 per cent.

TABLE XXI.—AVERAGE LOSSES AND EXPENSES OF CITY AND COUNTRY NATIONAL BANKS, 1914 TO 1926[1]
(In cents per dollar of loans and investments)

State	Losses[2]	Expenses	Total cost
California:			
Reserve city	0.81	4.72	5.53
Country	0.83	5.05	5.88
Illinois:			
Central reserve	0.57	3 97	4.54
Country	0.61	4.47	5.08
Iowa:			
Reserve city	0.70	5.34	6.04
Country	0.87	5.74	6.61
Kansas:			
Reserve city	0.73	5.76	6.49
Country	0.89	5.82	6.71
New York:			
Central reserve	0.74	3.68	4.42
Reserve city	0.81	4.35	5.16
Country	0.65	4.30	4.95
Texas:			
Reserve city	0.81	5.46	6.27
Country	1.50	5.98	7.48
Washington:			
Reserve city	0.93	5.07	6.00
Country	1.05	5.66	6.71

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[1] Comptroller of the Currency, *Ann. Repts.* Data not given for 1920.

[2] Recoveries on losses not deducted for 1914, 1915, 1916, and 1917.

The heavy losses of Texas country banks as compared with those of Texas city banks are explained in part by the exceptionally high losses of the former banks in 1921, 1922, and 1923. During these years, Texas country national banks lost 2.34, 2.61, and 2.14 cents per dollar of their loans and investments, while the losses of Texas reserve city national banks were 1.13, 1.07, and 1.18. The heavy losses of country banks during these years is accounted for in part by the exceptionally low prices of beef cattle and cotton. The situation was made all the more severe because of the almost complete dependence of the customers of the banks upon one or the other of these commodities.[1]

Questions and Problems

1. *a.* Criticize the use of country national bank costs as representative of the costs of all country banks.
   b. Are the so-called "country banks" exclusively farmers' banks? Explain.

2. Give reasons for the large portion of total expenses which goes to pay wages and salaries in country banks.

3. Can you account for the comparatively high cost of deposits among Montana, North Dakota, Iowa, and New York banks?

4. *a.* Does the variation in volume of business among the banks of the 13 states fully account for the difference in expenses?
   b. Explain why a greater degree of correlation should be expected between volume of business and wages, salaries, and "other expenses" than between volume of business and taxes, interest on borrowed funds, and interest on deposits.

5. In view of the general assumption that Southern and Western states are deficit areas for loanable funds, explain the relative insignificance of expenses for borrowed funds among the banks of these states.

6. *a.* The figures in Table XI indicate that in most cases banks with high expenses also have high losses. Explain.
   b. Show the importance of expenses as compared with losses in explaining interest rates on loans.

7. Are the comparatively heavy losses on loans in the South and West due wholly to the hazards of the agricultural industry in these sections? Explain.

8. *a.* Explain the wide variations in the cost per dollar of loans and investments from 1914 to 1926.
   b. What is the relation between the changes in cost per dollar of loans and investments and the changes in the general price level for all commodities?

9. Was the increase in the ratio of loans and investments to capital from 1914 to 1926 sufficient to compensate bankers for their increased costs per dollar of loans and investments?

10. Why are expenses per dollar of loans and investments commonly higher in country banks than in city banks?

11. In view of the fact that agricultural loans are often considered more hazardous than industrial and commercial loans and that country bankers in general are considered less efficient than city bankers, why are losses

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[1] For a summary and graphic presentation of some of the more significant data in this and the next chapter, see "Country Banking Costs and Interest Rates Charged on Short-term Farm Loans," *The Journal of Land and Public Utility Economics*, August, 1929.

among city banks about the same as those in country banks in six of the seven states in which comparison is made in Table XXI?

References for Further Reading

ECKARDT, H. M. P., "A Rational Banking System," Chap. 2.
LAUGHLIN, J. L., "Banking Reform," Chap. 18.
PHILLIPS, C. A., "Bank Credit," Chap. 14.
WILLIS, H. P., and G. W. EDWARDS, "Banking and Business," Chap. 13.

CHAPTER XVI

OTHER FACTORS AFFECTING THE INTEREST RATE

In explaining the rate of interest charged by bankers, several factors other than banking costs must be considered. These include the necessary dividends on the bank investment, the value of loans to borrowers, and the bargaining power of bankers and borrowers. In fact, it will be shown in the following discussion that these factors, particularly the latter two, indirectly help to determine banking costs.

DIVIDENDS TO STOCKHOLDERS

The banking business cannot be maintained on an income which is barely sufficient to pay the actual expenses of operation and to cover operating losses. The rate of interest charged for loans must be high enough above the "cost rate" to yield a return on the banker's investment comparable to the return in other lines of business in which investments have similar hazards.

From the standpoint of economic theory, dividends on bank stock are used to pay interest on the investment and to pay profits for superior ability of the management and the risk involved in the business. That is, the banker will require not only the "going rate" of interest on the safest available investments, but enough above the going rate to compensate him for his superior (if it is superior) business ability and for the risk of loss on the investment.

1. Interest on Investment

The "going rate" of interest on the safest available investments varies from time to time and from section to section of the country. The variation from time to time is due to changes in the general supply of loanable funds in relation to the general demand. During a period of business prosperity the general level of interest on investments, stimulated by the strong demand for funds, tends to go up, and during a period of depression the demand slackens and the interest rate goes down. United States

Government (Liberty) bonds, for instance, were yielding 5 per cent or more in 1919 and 1920, whereas, in 1924, they were yielding about 4 per cent.

The "going rate" on equally safe investments often varies from one section of the country to another or from one country to another because of the lack of fluidity of loanable funds. What a Pennsylvania banker, for instance, considers a very good return on a safe investment may be considered a very poor return by a Texas banker. On first thought, it may seem that the difference is due to the greater risk of Texas investments. On the whole, this does account for a part of the difference in the returns on Pennsylvania and Texas investments, but the records of the loans of building and loan associations and farm-mortgage and insurance companies in the two states do not indicate that the difference in safety wholly explains the difference in the rates charged. The common rate of interest on "building and loan" stock in Texas cities, in 1925, was 10 per cent, while that in Pennsylvania was about 6 per cent. The difference in the degree of safety of the investment obviously does not account for this wide variation in rates. Probably, a larger part of the difference in rates was due to the lack of liquidity of investment funds. If investors in Pennsylvania had known the degree of safety in Texas investments and had connections with dependable bankers who could have properly placed the loans, they would unquestionably have chosen Texas investments. Hence, bankers in newer sections of the country, or in less well-known sections, have a different conception of a "fair return" on investments. The "going rate" is higher. The banker's insistence on this higher return will be reflected in the rates he charges on loans.

2. PROFITS

In addition to the going rate on the safest available investments, bankers expect, and in the long run will require, compensation for superior business ability and for the risk of loss of dividends and of loss on the investment. Compensation for superior ability among bankers is obtained chiefly through a reduction of costs of operating the bank rather than an increase in the rate charged on loans, since interest rates in a given city or territory are usually about the same. The more efficient bankers may even charge a lower rate and still make larger dividends than their competitors.

Of greater direct significance in its effect on interest rates charged by bankers is the business ability of bankers as compared with the ability of men in other lines of business. If the successful operation of a country bank requires a higher type of ability than does small-town merchandising, for instance, it is reasonable to assume that the banker would insist on compensation accordingly. He has the alternative of going into merchandising and making a greater success than have his competitors. It seems to be conceded generally that the banker in the small country town is considerably above the average merchant in business ability. We pay a skilled laborer more than an unskilled laborer not only because he can do a given job more efficiently, but also because he can do jobs which the latter cannot do. The banker is not only compensated through his ability to reduce costs of operation, but also through payment for a superior service.

Still more tangible and more important in its bearing on the interest charged on bank loans is the risk involved in the loss of dividends and investment. Assuming equal ability of bankers, the risk of failing to earn regular dividends on the investment varies from one section of the country to another chiefly according to the certainty of income of bank customers. Proverbially, the banker in a community which depends upon one product for its income faces greater risks of irregular earnings than does the banker whose customers produce a variety of products. Similarly, the banker's risk of losing on the investment itself varies according to the certainty of income of customers over a long period of time. Thus, the banker in a new and untried farming section has a greater risk of losing his investment than does the banker in an old and stable farming community.[1] Special inducements are required to attract bank investments to a new community.

Another risk which is peculiar to bank investments is that of losing not only the investment, but also an additional amount. Although the liability of the stockholder in the ordinary corporation is limited to the par value of the stock held, the liability of stockholders in all national banks and the state banks in many states is double the amount of stock held. In the long run bank stockholders must be compensated for this extra risk.

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[1] During the period from 1921 to 1926, more than 47 per cent of the country national banks in Montana failed; in North Dakota, 23 per cent; in Arizona, 15 per cent; in Iowa, 9 per cent; and in Washington, 6 per cent. On the other hand, New Hampshire country national banks came through this period of depression without a failure; in New York only 0.2 of 1 per cent failed; in Illinois, 0.9 of 1 per cent. See Comptroller of the Currency, *Ann. Repts.*

3. Ratio of Loans and Investments to Capital

Since the income of these banks is derived chiefly from loans and investments,[1] the margin which the banker must charge above the "cost rate" in order to earn a fair dividend for stockholders depends largely upon the volume of loans and investments in relation to the amount of capital. The average total loans and investments of country national banks in Texas for the four reports for the year ending June 30, 1926, for instance, was $339,239,000 and the total capital of these banks was $83, 573,000, a ratio of 4.06 to 1, while the loans and investments of New York country national banks was $927,697,000 and the total capital was $129,865,000, aratio of 7.14 to 1. An increase of 1 per cent in the rate charged on New York loans and investments would mean an increased yield on capital of 7.14 per cent, while 1 per cent increase in the rate on Texas loans would mean an increased yield on capital of only 4.06 per cent. To express it in still another way, New York banks could pay a dividend of 8 per cent on their capital by having a margin above cost of 1.12 per cent on loans and investments, while Texas banks would require a margin of 1.97 per cent.

Table XXIII shows the average ratio of loans and investments to capital in country national banks for the period from 1914 to 1926, excluding 1920. If we assume equal operating costs, the Texas and New Hampshire banks would have to charge about 1 per cent more on loans than would the Washington banks because of the low ratio of loans and investments to capital in the former banks.

If the net interest required to yield 8 per cent on capital is added to the banking cost per dollar of loans and investments, we have the total rate which must be charged on loans to yield 8 per cent on the investment, leaving out of consideration minor sources of income. Table XXIV gives the figures on cost, net

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[1] See Table XXII. The percentage of gross income derived from domestic exchange is probably greater in state banks which are not members of the federal reserve system than in national banks, since the income from exchange was greatly reduced for the latter banks by the Federal Reserve Act.

TABLE XXII.—PERCENTAGE DISTRIBUTION OF GROSS EARNINGS OF COUNTRY NATIONAL BANKS IN 13 REPRESENTATIVE AGRICULTURAL STATES FOR THE YEAR ENDING JUNE 30, 1926[1]

State	Interest and discount	Domestic exchange and collection	Profits on foreign exchange	Commissions and earnings for insurance and negotiation of real-estate loans	Profit on trust department	Other earnings
Arizona	85	4	1	..	..	10
California	88	2	..	..	1	9
Illinois	92	1	..	..	1	6
Iowa	92	1	..	1	..	6
Kansas	92	1	..	..	1	6
Mississippi	88	4	1	..	1	6
Montana	90	2	..	1	..	7
New Hampshire	88	1	..	..	..	11
New York	90	..	..	..	1	9
North Carolina	91	4	..	..	..	5
North Dakota	88	4	..	2	..	6
Texas	92	3	..	..	..	5
Washington	89	2	..	..	1	8

[1] Comptroller of the Currency, *Ann. Rept.*, 1926, pp. 44–47.

TABLE XXIII.—RATIO OF LOANS AND INVESTMENTS TO CAPITAL[1] OF COUNTRY NATIONAL BANKS, 1914 TO 1926

State	Ratio of loans and investments to capital	Net interest required to yield 8 per cent on capital, per cent
Arizona	5.94	1.35
California	5.23	1.53
Illinois	4.97	1.61
Iowa	5.40	1.48
Kansas	4.65	1.72
Mississippi	5.00	1.60
Montana	5.05	1.58
New Hampshire	3.77	2.12
New York	5.90	1.36
North Carolina	4.66	1.72
North Dakota	6.02	1.33
Texas	3.33	2.40
Washington	6.22	1.29

[1] Capital here includes capital stock, surplus, and undivided profits. Comptroller of the Currency *Ann. Repts.*

interest required to pay an 8 per cent dividend, the sum of these two for 1914 to 1926, and the rate bankers reported that they charged farmers for loans in 1923. If costs are apportioned according to sources of income, from 5 to 12 per cent of the total cost can be paid from sources other than interest on loans and investments. The figures in the second column from the right then represent the average rates necessary on loans and investments to pay costs and 8 per cent in dividends.

TABLE XXIV.—COSTS PER DOLLAR OF LOANS AND INVESTMENTS AND NET INTEREST REQUIRED TO PAY 8 PER CENT ON CAPITAL FOR COUNTRY NATIONAL BANKS, 1914 TO 1926;[1] RATES CHARGED ON LOANS TO FARMERS IN 1923

State	Cost, cents	Net interest required, cents	Cost plus net interest, cents	Gross earnings to interest on loans and investments,[2] per cent	Gross interest required, per cent	Rate charged farmers, per cent
Arizona	9.00	1.35	10.35	88.3	9.14	9.4
California	5.88	1.53	7.41	90.2	6.68	7.7
Illinois	5.08	1.61	6.69	93.6	6.26	6.7
Iowa	6.61	1.48	8.09	94.2	7.62	7.6
Kansas	6.71	1.72	8.43	94.4	7.96	8.2
Mississippi	6.48	1.60	8.08	89.5	7.23	8.0
Montana	7.71	1.58	9.29	92.5	8.59	9.8
New Hampshire	4.71	2.12	6.83	89.4	6.11	6.0
New York	4.95	1.36	6.31	91.5	5.77	6.0
North Carolina	5.49	1.72	7.21	91.9	6.63	6.2
North Dakota	8.08	1.33	9.41	91.6	8.62	9.8
Texas	7.48	2.40	9.88	92.6	9.15	9.7
Washington	6.71	1.29	8.00	90.6	7.25	8.4

[1] Data for 1920 not reported. Comptroller of the Currency, *Ann. Repts.*

[2] 1918 to 1919 and 1921 to 1926.

Country banks in most of the states under consideration have lower ratios of loans and investments to capital than do city banks. Thus, the country national banks in Texas found it necessary to charge four-fifths of 1 per cent more on loans and investments than did Texas city banks because of the small volume of business in relation to the amount of capital invested. In the other states the difference was not so great. In California, the country banks had a larger ratio of loans and investments to capital than did the city banks. Table XXV shows these ratios for the seven states.

TABLE XXV.—RATIO OF LOANS AND INVESTMENTS TO CAPITAL OF CITY AND COUNTRY NATIONAL BANKS, 1914 TO 1926[1]

State	Ratio of loans and investments to capital	Net interest required to yield 8 per cent on capital, per cent
California:		
Reserve city	4.86	1.65
Country	5.23	1.53
Illinois:		
Central reserve	5.93	1.35
Country	4.97	1.61
Iowa:		
Reserve city	7.30	1.10
Country	5.40	1.48
Kansas:		
Reserve city	6.11	1.31
Country	4.65	1.72
New York:		
Central reserve	5.84	1.37
Reserve city	7.15	1.12
Country	5.90	1.36
Texas:		
Reserve city	5.01	1.60
Country	3.33	2.40
Washington:		
Reserve city	7.36	1.09
Country	6.22	1.29

[1] Comptroller of the Currency, *Ann. Repts.* Data not given for 1920.

Table XXVI shows the sum of costs and net interest required to yield 8 per cent on capital in city and country national banks in the seven states. The second column from the right in this table shows the percentages of gross income which are derived from loans and investments. The last column shows the interest rate which must be charged on loans and investments, assuming that costs and dividends should be apportioned to loans and investments and other sources of income according to their importance in producing gross earnings.

TABLE XXVI.—COSTS PER DOLLAR OF LOANS AND INVESTMENTS AND NET INTEREST REQUIRED TO PAY 8 PER CENT ON CAPITAL FOR CITY AND COUNTRY NATIONAL BANKS, 1914 TO 1926[1]

State	Cost per dollar of loans and investments, cents	Net interest required to pay 8 per cent on capital, cents	Cost plus net interest required, cents	Gross earnings to interest on loans and investments[2], per cent	Interest required on loans and investments, per cent
California:					
Reserve city	5.53	1.65	7.18	90.0	6.46
Country	5.58	1.53	7.41	90.2	6.68
Illinois:					
Central reserve	4.54	1.35	5.89	90.7	5.34
Country	5.08	1.61	6.69	93.6	6.26
Iowa:					
Reserve city	6.04	1.10	7.14	94.3	6.73
Country	6.61	1.48	8.09	94.2	7.62
Kansas:					
Reserve city	6.49	1.31	7.80	89.2	6.96
Country	6.71	1.72	8.43	94.4	7.96
New York:					
Central reserve	4.42	1.37	5.79	85.0	4.92
Reserve city	5.16	1.12	6.28	91.0	5.71
Country	4.95	1.36	6.31	91.5	5.77
Texas:					
Reserve city	6.27	1.60	7.87	88.9	7.00
Country	7.48	2.40	9.88	92.6	9.15
Washington:					
Reserve city	6.00	1.09	7.09	87.0	6.17
Country	6.71	1.29	8.00	90.6	7.25

[1] Data not given for 1920. Comptroller of the Currency, *Ann. Repts.*

[2] Average for eight years, 1918 to 1919 and 1921 to 1926.

In Iowa, Kansas, and Washington the rate required on loans and investments of country banks was approximately 1 per cent more than that required by city banks. The same situation is found in the rate of country banks and central reserve city banks in New York and Illinois. In Texas, the difference in the rate required by country and city banks was more than 2 per cent, while that in California was about one-fifth of 1 per cent.

The rate of 8 per cent dividend on bank stock has been used here for illustrative purposes. The actual rate earned on capital, including surplus and undivided profits, during the period under consideration is shown in Table XXVII.

TABLE XXVII.—AVERAGE EARNINGS OF CITY AND COUNTRY NATIONAL BANKS, 1914 TO 1926[1]

State	Average Annual Return on Capital
Arizona	2.80
California:	
Reserve city	6.64
Country	7.16
Illinois:	
Central reserve	8.15
Country	7.53
Iowa:	
Reserve city	7.00
Country	5.89
Kansas:	
Reserve city	7.01
Country	6.38
Mississippi	7.77
Montana	5.61
New Hampshire	7.33
New York:	
Central reserve	9.29
Reserve city	8.43
Country	8.42
North Carolina	7.49
North Dakota	5.16
Texas:	
Reserve city	8.12
Country	6.23
Washington:	
Reserve city	9.19
Country	8.11

[1] Comptroller of the Currency, *Ann. Repts.* Data for 1920 not given.

VALUE OF LOANS TO BORROWERS

In analyzing the factors which determine the rate of interest, or the price of loans, demand factors must of course be considered. The maximum rate which borrowers will pay is limited by the usefulness of borrowed purchasing power. The usefulness of purchasing power is measured by its productivity when it is used for production purposes and the strength of the desire for present goods when it is used for consumption purposes.

1. PRODUCTIVITY OF PRODUCTION LOANS

Many difficult problems arise in attempting to determine the productivity of a short-term loan. In the case of a long-term loan used to buy land, it is evident that the borrower cannot afford to pay an interest rate which exceeds the normal rate of return on the investment. For instance, suppose a farmer pays $100 per acre for a farm which normally yields an annual net rent of $5 per acre. From a purely economic standpoint it would be foolish to pay 8 per cent for a loan with which to buy the farm. The only possible reasons for borrowing under such conditions would be based on the prospects for a larger return sometime in the future, and the resulting increase in the price of the land, or some such attraction as that of home ownership. Unless the rent increases or the farmer is willing to pay $3 per acre annually for the satisfaction of owning a farm, he is simply paying $8 per acre per year for the use of land which he could rent from a landlord at $5 per acre per year.

But in the case of operating loans the parallel cannot be so easily drawn between the cost of the loan and the returns which it yields. Operating loans are obtained under different circumstances, and the bases for estimating their productivity are less definite.

Uncertainty of Production and Price. — In the first place, the production and price of products is far less certain for any given year than is the average production and price over a long period of years. In other words, the average return on investment capital can be calculated with a greater degree of accuracy than can the return on operating capital and the labor used in one year's production. With a slight increase in the price of products or with favorable weather conditions, a $1,000 operating loan may yield the borrower $1,200, while with unfavorable prices and weather conditions the $1,000 loan may yield only $800. With chances to gain or lose by such wide margins, the interest item becomes less significant in the borrower's calculations. He is willing to take greater chances. He is willing to pay a higher rate of interest for loans.

Emergency Loans. — In the second place, a large percentage of farm-operating loans are obtained under emergency circumstances and their usefulness to the borrower is out of all proportion to the ordinary earnings of investment capital, as well as ordinary operating capital and labor. The farmer cannot estimate the value of emergency labor, for instance, on the basis of the value of regular year-round labor. When such crops as wheat, cotton, and tobacco are ready for harvesting, the farmer gives little consideration to the cost of loans to hire labor. When hundreds of dollars may be lost from weather damage within a few days, the difference between 5 and 10 per cent interest on a short-term loan is of little consequence.

Other labor emergencies, although less serious, often arise at the height of the planting and cultivating periods. The seasonal nature of agricultural production makes such emergencies unavoidable. The manufacturer may be able to distribute his labor rather evenly through the year, but the farmer inevitably has his seasonal rush and slack periods. It might be maintained of course that if the interest rate on loans to pay wages for emergency labor becomes too high the farmer will so restrict the size of his crop that his own labor will suffice, but the decrease in the total volume of output would be so great in comparison with ordinary interest charges on loans that the latter would have little significance.

Regular labor, on the other hand, which is employed throughout the year can scarcely be considered emergency labor. The farmer hires regular labor for the specific purpose of being able to run a larger-scale business. It may permit him to operate 150 instead of 125 acres, or to handle 20 instead of 15 dairy cows. The farmer will employ such labor with greater deliberation. The interest rate which he will be willing to pay for loans to pay such labor will be considered in his calculations. He is calculating on a narrow margin since his possible gains from hiring an extra full-time laborer are relatively much less than the possible gains from the employment of emergency harvest labor.

Loans obtained to make principal and interest payments on indebtedness, to pay taxes, and to pay rent clearly fall in the emergency class. The interest rate which the borrower is willing to pay for such loans is limited only by what might be called emergency productivity. These loans are obtained to prevent such extreme contingencies as the loss of the farm which is mortgaged to secure a long-term loan, the loss of the farm on account of delinquent taxes, and the necessity of having to move to another farm on account of failure to pay rent. Under such circumstances the interest rate is a small consideration.

Loans obtained to buy operating capital are sometimes emergency loans. When the farmer obtains credit to buy feed during a year following a crop failure, for instance, the value that he places upon the loan is not measured by any specific productivity that the feedstuff may have, but rather by the productivity of his whole farming unit. Unless he has feed his operations must stop. On the other hand, if farmers in a particular section make a common practice of buying feed they are evidently doing so because they think that it is more economical to use their land for other purposes, and the rate of interest which they are willing to pay on loans to buy feed will be affected by the relative advantage which they may have in producing other crops rather than feed. One of the causes for the gradual awakening among cotton farmers to the advisability of raising a part or all of their feedstuffs is the high interest rate charged on loans. Agricultural leaders in many parts of the Cotton Belt have come to the conclusion that the advantages of climatic and soil conditions for the production of cotton are not sufficiently great to make it profitable for the farmer to buy his feed. The case is clearer when the farmer has to buy feed on funds borrowed at 10 per cent interest.

Loans to buy livestock and machinery are sometimes emergency loans. Credit to replace worn-out machinery or incapacitated teams and milk cows is emergency credit, while that to obtain an extra team or an extra plow in order to operate on a larger scale is obviously obtained under no such contingency. In the latter case, the farmer is far more careful in his calculation of the cost of the loan. The purchase of commercial fertilizer with borrowed funds is, likewise, made with more careful consideration of the cost.

Relative Importance of Principal and Interest.—In the third place, interest is apparently of less importance in the short-term loan than in the long-term loan. The amount of interest paid on a loan for 1 year at 5 per cent is one-twentieth of the principal, while the amount of interest paid on a 40-year loan at 5 per cent is twice the total amount of the principal paid in lump sum at the end of the period. An increase to 6 per cent on the short-term loan would amount to only $1 on each $100 of the loan, while an increase to 6 per cent in the long-term loan would amount to $40 on each $100 of the loan. The conclusion that a reduction in interest rates on short-term loans is less significant to the farmer than the same reduction in rates on long-term loans is fallacious, yet many farmers do not seem to realize the fallacy. Farmers who would readily pay 10 per cent on operating loans often hesitate to pay 7 per cent on mortgage loans. In reality, the interest paid on a series of short-term loans over a period of 40 years is just as significant in relation to the average size of the principal of the loans as is the interest paid on a 40-year loan. If this fact were generally understood, farmers would probably put forth greater effort to obtain a reduction in the cost of operating loans. In so far as it is not fully appreciated, farmers will be willing to pay high interest rates.

2. The Desire for Consumption Loans

In the purchase of consumption goods and services on borrowed funds the value of the loan to the farmer is based on factors other than productivity. Groceries and other necessary family supplies are not bought primarily for the purpose of producing an income and there seems to be no limit to what the borrower is willing to pay for credit for these purposes.[1] Credit for such purposes is always emergency credit and, in the mind of the borrower at least, the emergency has no connection with production. The borrower places a somewhat stricter limit on what he will pay for credit to buy what may be considered unnecessary consumption goods, such as a pleasure automobile, a musical instrument, or a radio set. But that farmers will concede a very large discount to future values is indicated by the extensive purchase of automobiles during the past few years under conditions in which they agree to pay as much as $115 to $120 a year later for each $100 on the value of the car. The strength of the desire to consume goods in the present rather than wait until they can be bought with cash is further indicated by the fact that farmers often buy consumption goods on credit which costs them 10, 15, and 20 per cent when they would flatly refuse to pay such rates on a new plow or a binder.

Under such conditions the upper limit to the charge for credit seems to be set almost entirely by the competition of the lenders. The consumer seems to have no limit.

BARGAINING

Just where the interest rate will be set between the lower limit of costs and minimum dividends and the upper limit of usefulness of loans to borrowers is determined by the bargaining power of bankers and borrowers. In setting rates it must be realized that the banker is no more content with a rate that will barely cover costs and yield the minimum dividends discussed above than are other business men. He will charge what he can get, just as the farmer, merchant, or manufacturer, will charge what he can get for goods. There is no essential distinction. It is purely a matter of price-making. In general, the banker's rate will be set in accordance with demand and supply conditions. If the demand for loans in the community is decidedly in excess of the lending power of the banks of the community, the rate which the banker is able to charge is scarcely limited. If usury laws prevent him from openly charging what is considered an exhorbitant rate, he may evade the law by charging commissions and by discounting notes instead of adding the interest. On the other hand, if the banks of a given community are overstocked with loanable funds in comparison with the demand for loans within the community, the banker must either seek investments, such as stocks, bonds, and acceptances, or increase the local demand for loans. If he makes loans outside the community in the form of deposits in correspondent banks, bankers' acceptances, trade acceptances, or government bonds, he must usually accept 2 to 5 per cent interest. These investments have the advantage over local loans of being made very economically in large units and they may be liquidated on short notice, but in communities where the banker is accustomed to getting 7 to 10 per cent on local loans this is a very small return.

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[1] Merchant credit to farmers in Jefferson County, New York, cost an average of about 17 per cent in 1922; in Scotland County, North Carolina, 34 per cent in 1921; in Texas, about 20 per cent in 1925; and in Georgia, about 24 per cent in 1923.

On first thought it would seem that since a large share of the farmers' operating loans are emergency loans the setting of the interest rate would be almost entirely a one-sided affair. But the banker must lend his funds in order to pay expenses and earn dividends. To operate most economically he must, in fact, keep his funds lent right up to the limit at all times. The banker does have the advantage of knowing the emergencies of borrowers, while not many borrowers realize the emergency of the banker. In reality the banker's emergency is not as great as the farmer's, in that one loan of $500, for instance, may be absolutely necessary to the whole operation of a farming unit, while it is only a very insignificant part of the business of a banking unit. That is, one, two, or three banking units supply credit for hundreds or even thousands of farming units. In the second place, the banker has other options in investing his funds. He has a broader market for investments than the farmer has for loans. He can buy bonds, mortgages, and short-term securities outside of the community, while the great majority of farmers have no such alternatives. A very large and influential farmer may go outside of his community for operating loans, but this is seldom done. In the few cases where this is possible the banker often makes a special rate for such "desirable customers."[1]

SUMMARY AND CONCLUSIONS ON THE COST OF BANK CREDIT TO FARMERS

First, interest rates charged vary in direct proportion to the cost of banking. That is, the actual earnings on bank capital do not vary enough in different sections of the country or between city and country banks to account for any very significant variations in interest charges on loans.

Second, most of the variation in cost is due to the variation in expenses and not the variation in losses.

Third, variation in losses is due in part to the variation in banking efficiency and in part to the hazards of the industry in which borrowers are engaged.

Fourth, the amount paid for interest on deposits is an important portion of the total expenses of banks in many of the states and, therefore, is an important factor in determining the interest rate charged on loans. High interest on deposits or the payment of interest on a high percentage of total deposits does not in itself indicate a general scarcity of loanable funds in the community, but may indicate an oversupply of banks.

Banking expenses in the form of interest on deposits should be distinguished from other types of costs in that the community in general gets the benefit of a return on deposits. In so far as interest-bearing deposits are the deposits of the borrowers of the community, this banking expense is equivalent to a reduction of the rate of interest charged on loans. In so far as interest-bearing deposits are not the deposits of borrowers, the depositors of the community are being compensated at the expense of borrowers.

Fifth, while high expenses are associated with a small average volume of business, the correlation is by no means perfect.

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[1] See Ford, A. W., "A Study of Country Banking Practices in Northern Texas," Chap. 3 (Univ. Chicago, Thesis, 1926).

Thus, Arizona country national banks had fourth largest average volume of business, while their expense per unit of business was the highest; Kansas banks were second smallest in volume of business, yet they were fifth from the highest in expense per unit; North Carolina banks had an average volume of business almost the same as that of New York, but their expense per unit was almost 20 per cent higher.

Sixth, the small volume of business per bank is in most cases attributable to liberal banking laws and high customary rates on loans rather than the needs of small and sparsely settled agricultural communities. The ease of establishing and operating banks is such that agricultural towns which are able to support one large bank are in numerous cases supporting two or three small banks.

Seventh, the comparative inefficiency in banking in the West and South, whether due to small volume of business or inefficient business methods, is attributable primarily to the ability of bankers in these sections to command a high rate of interest on loans.

The last conclusion above requires further explanation. In the above analysis it was pointed out that the lower limit for rates charged farmers for loans is set by banking costs plus a reasonable profit on stock, the upper limit by the usefulness of loans, and that the actual rate charged between these limits is determined by the bargaining power of bankers and borrowers. Data presented show a close correlation over a 13-year period between costs, plus an 8 per cent dividend on capital, and the rate of interest charged on loans. But the point which should be emphasized here is that the superior bargaining power of bankers over farmers in many parts of the country has been a big factor in establishing a high level of costs. The willingness of farmers to pay high rates or their inability to avoid paying high rates has been conducive to inefficient banking practices.[1]

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[1] In the light of the popular assumption that the high rates in the Western states are due largely to the extreme risks of farming in that section, it is interesting to note that Canadian bankers just across the line from Montana, Idaho, and North Dakota seem to be thriving with a maximum legal rate of 6 per cent, while the average rate paid by farmers in these states is between 9 and 10 per cent. This would seem to indicate that we might do well to look to our banking costs instead of explaining high rates with the generality that "agriculture is extremely hazardous in these states." See "Rural Credits," *Hearings before the Subcommittee of the Joint Committee on Rural Credits,* Sixty-fourth Congress, First Session, p. 60.

When the West was a new and rapidly developing country loanable funds were extremely scarce; banks were necessarily small, and the ratio of loans to capital was small. Under such circumstances with most efficient business methods the banker had to charge a high rate on loans to make dividends. As interest rates in small towns are fairly constant, the original high rate came to be what might be called "the customary rate." Thus, in Southern and Western communities 10 per cent came to be generally accepted as the annual value of money. In the year 1929, senior students in the Agricultural and Mechanical College of Texas, a state which is on the border line between the Old South and the West, when asked what money is worth, without time for full deliberation, stated invariably that it is worth 10 per cent.

Although the Southern states are old in point of time, their financial situation since the Civil War has been quite similar to that of the Western states. In many sections of the South farmers had a task of rehabilitation which was equivalent to the task of settling a new territory. Buildings were in bad repair, equipment was scanty, and the soil had been robbed of much of its fertility. Moreover, the transition from slave to free labor created additional financial difficulties.

Under such conditions, the agricultural communities in the South and West were distinctly "lender's markets." The banker invariably had a demand for more funds than he could supply. The farmer had his choice between the credit merchant and the banker. If he chose to avoid the high rate of the banker, he became involved in an inefficient system of merchant credit and his rate was considerably higher than the bank rate.

An investigation made by the Comptroller of the Currency as late as 1915 reveals the continued strong bargaining position of bankers in the South and West.[1] According to reports made under oath by bankers, more than half of the national banks in Texas, North Dakota, and Montana were charging an average rate of 10 per cent or more. In one state in the Southwest, 125 national banks charged an average rate of 12 to 14 per cent, while 46 banks in this state charged the exhorbitant rates of 15 to 18 per cent. These high rates were often obtained on the pretext of charging the customary rate of 10 per cent by making a flat charge of 10 per cent of the amount of the loan regardless of the length of term.

[1] Comptroller of the Currency, *Ann. Rept.*, 1915, Vol. I.

As the agricultural communities developed and the volume of banking business increased to the point that one bank could realize the economies of large-scale operation, another bank was established and both were able to eke out dividends under the protection of the well-established "frontier rate" on loans.

The enormous increase in volume of business per bank from 1914 to 1926,[1] however, did improve the situation of the banks in the thirteen states under consideration. With the higher general price level which prevailed in 1926 and the resulting increase in total expense of the banks, their expense per dollar of loans increased, but the increase was not sufficient to absorb all of the advantage gained by the higher ratio of loans and investments to capital. A glance at Tables XV and XVI will show that a net advantage equivalent to about one-half of 1 per cent was gained by the banks in most of the states from 1914 to 1926. The decline in rates charged farmers, as indicated in Table V, indicates that borrowers have been getting some advantage from these economies.

There are other indications that farming communities of the South and West are gradually losing their character as strictly lender's markets. The percentage of total earning assets which is represented by investments in bonds, stock, commercial paper and other securities is a fairly good indicator of the supply of loanable funds of a community. That is, a high percentage of such investments usually indicates that the banker has found the demand for loans inadequate to absorb his funds. Table XXVIII shows some of the significant changes from 1906 to 1926 in the percentage of earning assets represented by securities.

The percentage of what might be termed "outside" investments of these banks has more than doubled in most of the states since 1906. Many of the more progressive and wise bankers welcome the opportunity to have substantial investments in salable bonds and acceptances as a reserve. The desirability of investments in government and public utility bonds is particularly great in agricultural communities which are subject to intermittent crop failures. Farmers' notes held may be safe but it may be necessary to carry a large percentage of them over to another harvesting season. Under such circumstances, the banker who has a good supply of salable securities is in a good position to bridge over the bad year.

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[1] See Table XV.

Also, comparatively little expense is involved in security investments. They may be bought in large sums directly from the issuing company or government, or they may be bought through investment bankers by the payment of a small commission. Sale of such investments is likewise simple and inexpensive, particularly if they are listed on the large stock exchanges.

Table XXVIII.—Percentage of Country National Bank Loans and Investments in the Form of Investments, 1906, 1912, 1922, and 1926[1]

State	1906	1912	1922	1926
Arizona	16.0	18.1	13.8	33.4
California	14.0	18.6	26.5	33.5
Illinois	13.0	17.5	27.1	31.1
Iowa	2.2	7.0	11.2	17.9
Kansas	10.0	8.8	17.9	19.9
Mississippi	13.0	16.6	22.1	23.6
Montana	9.0	8.1	14.5	31.8
New Hampshire	10.0	27.4	33.8	35.9
New York	32.0	26.4	40.9	43.1
North Carolina	5.4	3.1	9.9	7.3
North Dakota	4.0	5.0	10.1	30.7
Texas	1.5	4.6	9.5	13.7
Washington	14.0	15.5	29.3	35.4

[1] Comptroller of the Currency, *Ann. Repts.*

On the other hand, security investments are subject to change in value. The banker may easily lose enough on the principal of the bond or stock to absorb all the interest and dividend collected. Also, the banker must almost invariably accept a lower rate of interest than he gets on local loans. The difference is particularly significant in the South and West where local rates are the highest. The banker feels that he is making a considerable sacrifice when he has to go to the general securities market to place his funds. This situation is conducive to real competition among bankers to get the available loans of the community, and in the long run will be effective in reducing the local rate.

All of this is equivalent to saying that the supply of loanable funds in farming communities is gradually catching up with the demand. Bank capital and deposits are becoming more adequate in meeting the needs of borrowers.[1]

There are other factors which are tending to equalize the bargaining power of bankers and borrowers. First and most important is the increasing realization among farmers that interest is a significant item of cost. Up to a decade or two ago farmers of the South and West generally looked upon interest on short-term loans as an incidental or minor charge. Objection to a rate of 10 to 12 per cent was almost unheard of. Getting the loan was the sole consideration. Short-term loans were commonly looked upon as emergency makeshifts, and little calculation was made of the cost. The farmer considered himself fortunate to be able to get the loan. But as borrowing becomes a more common method of financing and as interest becomes a larger item in the annual cost of operation, the farmer is giving more thought to the rate.

Twelve years of operation of the federal farm loan system has done much to convince farmers in high-interest sections of the significance of interest charges. In hundreds of communities where the rate on farm mortgages was commonly 7, 8, or 10 per cent in 1915, farmers are now obtaining loans at 5 and 5½ per cent. The establishment of intermediate-credit banks has called attention further to the desirability and possibility of lower rates for farmers. Members of cooperative marketing associations have learned that money can be obtained by their organization at half the rate they are accustomed to pay the local banker.

During the period of depression, after 1920, farmers of the South and West probably came to realize more thoroughly than ever before the importance of interest charges. Many farm mortgages were foreclosed because of the inability of farmers to make interest payments. The low price of products put great emphasis on the cost of production, and farmers came to realize that the interest-charge item was sufficiently large to account for the difference between a few hundred dollars of net income and no net income. The experiences of this period were all the more effective in throwing interest charges in relief because of the unusually heavy borrowing which was necessary.

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[1] It should be observed in this connection also that with the establishment of the federal reserve system the country national banks were able to make fuller use of funds at their command because of the reduction of the legal reserve and the greater certainty of being able to obtain additional funds through rediscounts in case of emergency.

A second factor which is conducive to lower interest rates for farmers is the facility with which farmers can travel into adjoining communities. The automobile and good roads have probably had the effect of reducing distances by at least three-fourths. That is, the farmer can drive 20 miles to do his banking business as easily as he could drive to a town 5 miles distant before automobiles came into use. This has the effect of increasing the competition among bankers. It makes possible a greater expansion of the business of the banker who is able to offer the attractive inducements, and at the same time makes it more difficult for the inefficient banker to make dividends. In other words, bankers in the county seat or other of the larger country centers have an opportunity to decrease their cost of operation by building up a larger volume of business. They can get the volume by offering loans at lower rates than are possible for the smaller banks of the villages. Such expansion of the banker's territory will involve some difficulty in that he cannot be as well acquainted with his customers, but the adoption of more accurate methods of credit analysis and the maintenance of complete records will eliminate the necessity for such close personal acquaintance. The movement toward larger units of business in country banking can be hastened further by the proper sort of banking legislation. Federal and state legislative committees on banking might do well to follow the normal trend toward larger country banks with higher minimum capital requirements.

To summarize the above discussion: (1) local bank capital and deposits are becoming sufficiently plentiful in most farming communities so that the bankers are seeking outside investments for a larger and larger percentage of their loanable funds, and this is conducive to keener competition among bankers for local loans; (2) keener competition will compel banks to employ more efficient methods of business; (3) the low rates of federal farm banks and the increasing attention which is being given to costs in farm production are creating a demand among farmers for lower interest rates; (4) automobile transportation is making it possible for bankers to cover a wider territory and to achieve economies through a larger volume of business.

Questions and Problems

1. *a.* Distinguish between "interest on the investment" and "profits" in bank dividends, and explain the two concepts.
    b. Should dividends on bank stock be greater in the South and West than in the North and East? Explain.

2. What is the relation between the ratio of loans and investments to capital and the interest on loans?

3. On the bases of expenses, losses, and the ratio of loans and investments to capital, write summaries explaining:
    a. Why interest rates are higher among country banks in the South and West than among those in the North and East.
    b. Why rates are higher among country banks than among city banks.

4. *a.* What determines the maximum rates which will be paid by borrowers?
    b. Are most short-term loans to farmers emergency loans?
    c. Why is there less hesitation in paying 10 per cent on short-term loans than on long-term loans?

5. Explain the meaning and importance of the bargaining power of bankers and borrowers in the determination of interest rates.

6. Explain the relation between superior bargaining power on the part of bankers and the high costs of banking.

7. Describe a "lender's market."

8. Analyze the factors which are tending to break down "lender's markets" in the South and West.

9. Can legislation assist in reducing banking costs?

References for Further Reading

Morman, J. B., "Farm Credits in the United States and Canada," Chaps. 7, 8, and 15.

The following references contain analyses of the cost of merchant credit in various states:

Univ. Wis., Agr. Exp. Sta., *Bull.* 247, pp. 44–52.
Cornell Univ. Agr. Exp. Sta., *Bull.* 430, pp. 19–39.
N. C. Dept. Agr., *The Bulletin*, May, 1923, pp. 20–28.
Tex. Agr. Exp. Sta., *Bull.* 351, pp. 17–21.
U. S. Dept. Agr., *Yearbook*, 1924, pp. 228–231.

The following references on long-term mortgage credit:

Tex. Agr. Exp. Sta., *Bull.* 330, pp. 9–10, 21–24, and 45–46.
U. S. Dept. Agr., *Bull.* 1047.
U. S. Dept. Agr., *Yearbook*, 1924, pp. 208–219.

PART V

GOVERNMENT AND AGRICULTURAL CREDIT

The degree of control which the federal government and state governments exercise over credit transactions varies from the law of contract defining the rights of individual lenders to complete ownership and control of the federal intermediate-credit banks. Except for an occasional penalty for violating an antiquated usury law, individuals, merchants, and farm-mortgage companies are subject to legal restriction only in so far as the general law of contract may be considered a restriction. On the other hand, insurance and trust companies in most states must choose their investments from certain types of securities specified by the state government. The commercial banking system has long been regulated and closely supervised by the federal and state governments. The federal land banks and the intermediate-credit banks are almost completely under the control of the federal government, while joint stock banks and national agricultural-credit corporations are subject to very strict supervision.

Much confusion exists among farmers and agricultural leaders as to the actual relation of government to farm credit at the present time. There is perhaps even more confusion as to the principles upon which government regulation and supervision of credit are based and as to how far the government can and should go in regulating the credit system. The following three chapters will deal briefly with the present status of government regulation of farm credit and the principles upon which such regulation rests.

CHAPTER XVII

GENERAL REGULATION OF MONEY AND CREDIT

State and federal laws which affect agricultural credit may be classified as follows: laws applying to credit transactions in general; laws regulating the commercial banking system; legislation specifically applicable to agricultural credit; and laws which only incidentally affect credit, such as homestead acts and tax laws.

GENERAL CREDIT STATUTES

General credit legislation includes statutes on contracts and on real-estate and chattel mortgages, such as were described in Chap. X. These statutes define the responsibilities and rights of debtor and creditor, and they are applicable to commercial and industrial credit as well as farm credit. Another type of statutes, commonly known as "usury" laws, determines the maximum rate which lenders may charge.

Table XXIX indicates the maximum rates which were permitted under the usury statutes of the various states in 1915.[1] With very few exceptions the 10 and 12 per cent rates were found in the West and Southwest, the 8 per cent rates

Table XXIX.—Number of States Having Various Usury Rates in 1915[1]

Maximum Rate (Per cent per annum)	Number of States
12	9
10	11
8	9
7	2
6	13
Unlimited if contract is written	3
No stipulation	1

[1] Comptroller of the Currency, *Ann. Rept.*, 1915, Vol. I.

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[1] Comptroller of the Currency, *Ann. Rept.*, 1915, Vol. I.

in the Middle West and Southeast, and the 6 per cent rates in the Northeast. In 19 states the penalty for violation of the usury law is forfeiture of all interest on the loan, in 6 states no penalty is set, in 5 states the usury charged is forfeited, and in 3 states the loan and interest are forfeited. In the remaining states, the penalty varies considerably, some assessing a fine, others a fine plus the interest on the loan, and others the interest plus a certain percentage of the principal.

In practice, however, usury laws are often evaded. In 1915, for instance, 168 national banks in Texas were charging 12 per cent or more on some of their loans, while the usury law in that state set 10 per cent as a maximum charge; 40 national banks in Illinois charged 12 per cent or more on some of their loans, although the usury law set 7 per cent as a maximum charge.[1] The common charge on merchant credit is probably more nearly double the usury rate. These laws represent a half-hearted attempt on the part of the state governments to protect weak bargainers. But the very fact that borrowers who pay such high rates are poor bargainers makes enforcement of the law difficult. The farmer who is scarcely able to borrow $100 at the bank, or to buy $500 worth of groceries and supplies at the credit store, is not likely to prefer charges against his beneficent creditor to recover excess interest. Aside from the fact that the present usury laws are often unenforceable, they are illogical and impracticable in their present form. The actual cost of negotiating small loans is frequently greater than the charge allowed by the usury law, aside from the interest which the banker must have for the loan. A $50 loan made for 30 days in a state which sets a maximum of 6 per cent would yield the banker 25 cents, scarcely enough to pay the clerical expenses involved.

If usury laws are to be retained, the rate should vary according to the type of loan and the basic rate should be adjusted from time to time as conditions change. Moreover, the rate schedules should in many cases vary from one section of a state to another. In other words, laws regulating interest rates should be based on scientific studies of actual credit conditions instead of a traditionally "just" maximum rate.[1]

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[1] Comptroller of the Currency, *Ann. Rept.*, 1915, Vol. I. Although the nominal rate is seldom higher than the legal rate, the actual rate is often higher. The three most important ways of raising the actual rate above the nominal rate are: (1) discounting the interest rather than adding it to the face value of the note; (2) charging a flat percentage of the face value of the note regardless of the time the note is outstanding; (3) adding commission or bonus charges to the nominal rate.

THE DEVELOPMENT OF REGULATION OF MONEY AND CREDIT

For centuries, the governments of the more advanced nations have had an important part in the adoption, the standardization, and the regulation of money. The development of standard forms of money acceptable throughout the nation advanced according to the economic and political progress of the nation. When trading was limited to exchange among neighbors within each community, it made little difference whether all communities used the same medium of exchange, but when products were shipped long distances and sold to strangers a common medium of exchange became highly desirable. Probably traders would have developed a common money in time, but governments, anxious to facilitate commerce, hastened the process by the adoption of a standard money. Through a gradual process of elimination gold has come to be the basic standard of money in the leading countries, although no international unit has yet been established.

Along with the development of a standard money, the central governments have gradually assumed the responsibility of regulating the supply and quality of coin or currency which should be issued. Experience early demonstrated that a definite relation must be maintained between the total supply of gold and the total supply of paper money in order to guarantee the necessary public confidence in the latter. Experience further demonstrated the close relation which exists between the total supply of money, paper and coin or bullion, and the regularity or stability of business. A sudden increase or decrease in the money supply creates maladjustments in business relations which are very difficult to correct. Hence, governments have come to regulate the supply of currency according to the supply of gold on the one hand, and according to the total needs of business on the other.

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[1] Among the early Christians any charge for the use of money was considered generally as usury, and the practice was looked upon as an injustice to the borrowers. Later with the development of commercial activity, particularly after the beginning of the modern era when borrowing came to be a common method of financing, interest came to be recognized as just and proper. Then the term "usury" came to be applied to excessive interest charges. Along with the development of the idea of a "just" price for goods, there developed the idea of a just rate of interest. The moral idea of justice was ever present, and it is evident in our usury laws.

The next important step in the progress of government control of money came with the necessity of regulating the distribution of money among the different industries. This step put the government in the business of regulating or supervising the distribution of credit, since one of the essential elements of credit is the ability to transform credit instruments into money. When the government directs a portion of the national money supply to any section of the country, it is facilitating credit transactions in that section.

The next step in government regulation of the distribution of credit is that of determining the conditions under which banks may make loans. Thus the basic law creating the federal reserve system sets certain definite limits as to the kind of security which is acceptable and the length of term allowed on loans. The law provides for further refinement in the regulation of the distribution of credit by giving the Federal Reserve Board authority to determine interest rates and to make various minor rules governing the reserve banks. Likewise, certain restrictions are placed on loans of state and national banks.

Thus with the gradual development of the country from the stage of "money economy" to that of "credit economy," the government has extended its supervision to include credit as well as money. Since credit instruments have largely supplanted coin and currency as media of exchange, government supervision of credit is essentially an extension of the old function of regulating money. There is this difference: money had its origin and basis in bullion while credit is based largely upon ordinary goods and services. The government has added to the old function of maintaining a desirable relation between gold and currency the function of maintaining a desirable relation between the money supply and the amount of credit. In this new rôle the government may check the expansion of credit to prevent a disastrously large ratio of credit instruments to money—disastrous in the sense that if further expansion were permitted, confidence in the ability to transform credit instruments into money would decrease to the point that credit would cease to be effective.

These steps in the advancement of government regulation of money and credit have not been made in well-defined periods of our history, but in the main they have been made in the order given here. The gold standard was not definitely established until 1900; uniform national currency was established in the 'sixties by taxing state bank issues out of existence. The establishment of a practicable working relation between the supply of currency and the amount of gold has been realized only since the Federal Reserve Act was passed in 1913. Although, previously, gold and silver certificates were issued, the currency supply under the national banking system had been more closely related to the supply and price of government bonds eligible to be used as a basis for national bank notes than it was to the gold supply. With the plan of the reserve system of concentrating the country's monetary gold in the reserve banks and the requirement of 40 per cent gold security for all federal reserve notes began a definite government program of adjusting our currency supply with the gold supply.

As to the function of distributing money among the different industries of the country, first attempts were made on a large scale by the federal government soon after the establishment of the national banking system. The Act of 1863 creating the national banking system provided for a maximum bank-note issue of $300,000,000, which was to be distributed among the national banks of the country according to the banking facilities and the estimated credit needs of the different sections of the country. This arbitrary method of distributing currency was unsuccessful and was soon abandoned. The money would not remain distributed as the government supervising officials thought that it should.[1] Fifty years later, in 1913, we adopted what seems to be a very practical means of distributing money—the plan of rediscounting among the regional reserve banks. Government regulation of the distribution of credit through detailed specifications of law and extensive powers of supervising officials, likewise, was originated with the Federal Reserve Act. Prior to 1913, national and state banks were restricted in many minor ways in the extension of credit, but these restrictions carried no hint of an attempt on the part of the government to control the general credit policies of the country. The prevention of real-estate loans by national banks and the limitation of the amount that could be lent to one individual and other such restrictions were insignificant as compared with the power given the Federal Reserve Board in determining the kind of paper which is eligible for rediscount at the reserve bank,[1] or the power to set the interest rate charged by these banks.

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[1] See Chap. XI.

Government supervision of the commercial banking system affects farm credit directly in so far as farmers deal with state and national banks, and indirectly in that other of their creditors, such as individuals, merchants, and unsupervised banks,[2] are greatly influenced by the government-supervised banks. Hence, in order to get a definite conception of the relation of government to short-term farm credit, it will be necessary to survey briefly the relation of government to the whole commercial banking system. Supervision has been instituted through special acts of Congress and the state legislatures. These laws call for supervision by the executive branch of the government and they create certain boards and offices for the purpose. The Federal Reserve Board supervises the twelve regional reserve banks which in turn include as members all of the national banks and many of the leading state banks of the various districts. Next in importance is the Comptroller of the Currency, an official in the Federal Department of the Treasury, who is the immediate supervisor of all national banks. Finally, state banking superintendents, or banking commissioners, supervise the banks organized under the laws of the various states.

Likewise the federal farm-loan system was provided for through acts of Congress and is supervised by government boards and officials. The federal and joint stock land banks and the intermediate-credit banks are supervised by the Federal Farm Loan Board which is appointed by the president of the United States. The board in turn selects a majority of the directors of each of the federal land banks and the intermediate-credit banks. National agricultural-credit corporations and rediscount corporations are supervised by the Comptroller of the Currency.

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[1] The Federal Reserve Act specifies broadly the kind of paper which shall be eligible for rediscount. Notes and bills drawn for agricultural, industrial, or commercial purposes are thus declared eligible, while notes drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities are not eligible. But as to the actual determination of the kind of agricultural, industrial, and commercial paper which is eligible for rediscount, the board is given discretionary power.

[2] The total amount of operating credit obtained from unsupervised lenders is of course very large. It includes loans from cattle loan companies, merchants of all kinds, and individuals.

Questions and Problems

1. Criticize the usury laws of this country.
2. *a.* Why is government regulation of money and credit necessary?
   b. Is the regulation of credit based on the same principles as the regulation of money? Explain.
3. Trace the development of government regulation of money and credit in this country.
4. Describe the government administrative machinery used in regulating and supervising banks.

References for Further Reading

Moulton, H. G., "The Financial Organization of Society," 2d ed., Chaps. 5 and 6, or 1st ed., Chaps. 6 and 7.

Ryan, F. W., "Usury and Usury Laws," Chaps. 10, 12, 13, and 18.

Westerfield, R. B., "Banking Principles and Practice," Vol. I, Chap. 10.

CHAPTER XVIII

SUPERVISION OF COMMERCIAL BANKS

Government supervision of the commercial banking system consists of two rather distinct phases: (1) controlling the policies and practices of the twelve reserve banks and through them influencing the general credit policies of state and national banks, and (2) directly supervising the organization and practices of state and national banks.

GOVERNMENT AND THE FEDERAL RESERVE SYSTEM

Towering above all bank-supervising bodies in power and prestige is the Federal Reserve Board. Its control over the credit system of the country centers largely in its power to influence the price in the "money market" and consequently to influence the ebb and flow of business. The board can lower the price of loanable funds and stimulate business activity, or it can raise the price of loanable funds and discourage business activity.

Through the Federal Reserve Act, Congress gave the Federal Reserve Board power to control interest rates, in so far as its power to raise or lower the rediscount rates of the regional reserve banks and its power to buy or sell credit instruments in the "open market" will achieve such control. On first thought it may seem that, since most of the bank loans in the country are not based on rediscounts with federal reserve banks or on open-market sales of credit instruments, the power of the board is only nominal. But the fact is that the board controls that marginal element of credit which determines the general level of rates. It supplies the "little more" or the "little less" which is a very important factor in determining the general level of interest rates. Thus, if it is the opinion of the board that credit is too "easy" in view of the business conditions prevailing, it may raise the rediscount rates at the twelve reserve banks. This tends to decrease the volume of rediscounts by member banks for the simple reason that it increases the cost and decreases the profits of the member banks, or if the member banks pass the increase in rates on to their customers the effect in curtailing loans is the same. Furthermore, if the increase in rediscount rates does not have the effect of decreasing the volume of borrowing, the board may force the general rates up by having reserve banks offer higher rates for commercial paper in the open market in competition with other banks, commercial paper houses, and discount companies. On the other hand, if the board feels that credit is too "tight," it may beat the rates down by lowering the rediscount rates of the reserve banks and, if necessary, by selling commercial paper held by the reserve banks. In this way the Federal Reserve Board holds the balance of power in determining the general level of interest rates on the short-term loans of the country.

A good illustration of the use of the power of the board to raise interest rates and, therefore, to check the increase of loans is found in the experience of 1920. In the judgment of the board, credit had been extended by a large percentage of the commercial banks beyond the point of safety. The total credit of the country had been expanded to a point that the reserves of the federal reserve banks were dangerously low. In January of that year, interest rates charged on rediscounts for commercial paper by the reserve banks were increased from 4¾ or 5 per cent to 6 per cent, and within a few months the rates of the larger reserve banks were raised further to 7 per cent. With the approval of the board some of the reserve banks increased the rates still further on a progressive scale. The Dallas Bank, for instance, applied the progressive rate on rediscounts made for a member bank in excess of the amount of the paid-in capital and surplus of the latter. This amount was called the "basic line" of credit, and on the first 25 per cent excess rediscounts the bank paid one-half of 1 per cent, extra interest; on the second 25 per cent excess, the bank paid 1 per cent extra, and so forth. Thus if the regular discount rate of the Dallas Bank was 7 per cent and a particular member bank with a capital and surplus of $100,000 had already rediscounted $100,000, the interest on the next $25,000 rediscounted would be 7½ per cent, and on the second $25,000, 8 per cent, and so on until the rate became practically prohibitive.

It is obvious that under such conditions the farmers and business concerns of all kinds are likely to find some difficulty in obtaining loans, whether their banks are members of the federal reserve system or not. If the bank is not a member of the system, it is indirectly dependent upon other banks that are members. Thousands and thousands of farmers found themselves in exactly this situation in 1920 and 1921.

The Federal Reserve Board has certain definite danger indicators in the expansion of credit and currency. Banking and monetary experience have taught that if the public is to retain confidence in our monetary system, the supply of currency must not become too great in relation to the gold supply upon which the system is based. If it does become too great, currency ceases to exchange dollar for dollar of gold and the system breaks down. Currency loses much of its usefulness as a medium of exchange and tends in extreme cases, such as that of Germany after the World War, to throw traders back on the old system of barter. Banking is a business of ratios, and our accumulated experience supplies the basis for these ratios. We wrote into the Federal Reserve Act two significant ratios for the reserve banks—35 per cent and 40 per cent. The former was set as the minimum cash reserve which federal reserve banks should have back of deposits, the latter was set as the minimum of gold which should be held back of federal reserve notes.[1] These percentages of deposits and note issues are the danger signs of the system. They are simply estimates of the amount necessary to maintain the confidence upon which credit is based.

On Jan. 30, 1920, the cash reserves of the federal reserve banks amounted to 44.5 per cent of total deposits and reserve notes outstanding.[2] On Apr. 30, they were only 42.4 per cent of deposits and notes. Some of the reserve banks found themselves with far less than the legal minimum, and the system as a whole was getting dangerously near the limit. There was no choice for the board. Continued expansion of the currency and liberal rediscounting might have wrecked the system. At least we would have found ourselves with currency which could not be redeemed at its face value in gold.

Special Farm-credit Provisions. The government through the Federal Reserve Act and through rulings of the Federal Reserve Board has performed certain specific services for agricultural credit. A brief outline of the more important improvements made in our banking system by the establishment of the federal reserve system was presented in Chap. XI: (1) the reduction of reserves required of local banks; (2) increased flexibility of the currency; (3) improved discount market; and (4) the recognition and standardization of agricultural paper. It should be emphasized in this connection that the government took the initiative in defining agricultural paper and inserted in a law dealing primarily with commercial credit the requirement for rediscounting agricultural paper. In this Act the government recognized agricultural credit as a distinct type of credit, and gave the Federal Reserve Board rather liberal powers in determining the eligibility for rediscount of various kinds of farm paper.

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[1] In extreme emergencies these percentages may be reduced, but only on penalty of a progressively increasing tax.

[2] Federal Reserve Board, *Ann. Rept.*, 1920.

The fundamental rules laid down by the Act and its amendments are that notes, the proceeds of which have been used for agricultural purposes, are eligible for rediscount with the federal reserve bank, providing they do not mature later than nine months (originally six months) after they are rediscounted. The definition of "agricultural purposes" is left largely to the board. In the following special cases, the board has defined paper as being agricultural and, therefore, eligible for rediscount for the longer periods of from four to nine months. First, farmers' notes given to the bank for purchase of machinery, draught animals, and dairy cows were classified as instruments of operating credit as distinguished from investment credit, and declared eligible. Second, drafts drawn by farmers upon cooperative marketing associations are defined as agricultural paper. This regulation is significant in that the rediscount privilege greatly facilitates financing the marketing of farm products by farmers' organizations. Third, acceptances drawn by farmers or cooperative marketing associations for the purpose of orderly marketing are defined as agricultural paper and are eligible for rediscount if accompanied by a warehouse receipt. While the great benefit of these regulations regarding eligibility for rediscount may not be obvious to the casual observer, they have done much to help local bankers in financing the farmer. Even though the banker may not rediscount much agricultural paper, the privilege gives him a feeling of safety and, therefore, more freedom in making advances to farmers for production and marketing purposes. The rediscount privilege has had no small part in the successful operating of farmers' cooperative marketing concerns.

The important point of this discussion here is that the establishment of such banking practices has not been left to the initiative of individual bankers. That is, the process of developing adequate methods of financing agriculture has been facilitated by a government body, and future progress along this line will be affected greatly by the decisions of the Federal Reserve Board.

Criticism.—It is conceded almost universally that the federal reserve system has greatly increased the efficiency of our money and credit systems. Our present monetary system is recognized throughout the world as being far superior to that in existence prior to 1913. Our monetary gold is effectively concentrated in the reserve banks and the Treasury, and the currency supply is more accurately regulated according to the gold supply on the one hand and the needs of business on the other. Through the use of 40 per cent in gold and 60 per cent in commercial paper as a basis for reserve note issues, we achieve safety and flexibility of currency. The necessary relation between monetary gold and commercial credit is maintained. In the Federal Reserve Board we have a single agency to make the adjustment. Business calls for credit in the normal borrowing operations at the local banks over the country and the board attempts to balance credit needs with the credit resources of the country. The most severe critics give the new system credit for weathering the crisis of 1920 and 1921 in a manner which would have been impossible under the old national banking system. The greater efficiency with which the federal reserve system distributes money among the different sections of the country to facilitate the financing of the nation's industries is probably the most obvious and the most widely recognized advantage of the new system.

The severest criticism of the whole system centers on the control assumed by the federal government over the "money market" through control of interest rates and the rediscount policies of the regional banks. It is maintained that control of the money market means control of business and that no board of eight men at Washington can be farsighted enough and wise enough to decide whether business should be expanded or contracted. Even if eight men of such wisdom and grasp of affairs could be found, many fear that appointments to the board would not be based on merit alone, but that these appointments may come to be looked upon as political favors.

Other critics of the system fear the pressure which is brought upon the board from outside forces. Just prior to 1920, for instance, the desire of the government to float the Victory Loan at $4\frac{3}{4}$ per cent had much to do with the delay in raising rediscount rates at the reserve banks. If rates had been raised early in 1919 instead of 1920, as many felt that they should, the government would have been at great disadvantage in selling Victory Loan Bonds. Then, in 1920, when the board did take matters into its own hands and advance the rates, it was severely criticized by the public for hastening the fall in prices of commodities. This reaction of the public was capitalized by the political parties in the presidential campaign of 1920, and the Republican party leaders promised a reduction in rates should Harding be elected. The promise was made good. Willis and Edwards, in "Banking and Business,"[1] indicate that the Federal Reserve Board was practically compelled to lower its rates. In 1924, President Coolidge stated that his administration favored keeping the rates low and asserted that the policy would be continued.

Some students of banking and credit problems have criticized Congress and the Federal Reserve Board for permitting the reserve banks to rediscount agricultural paper of the longer maturities, particularly for the amendment of 1923 which extended the maximum term of rediscounts from six to nine months. These critics maintain that the system which is essentially a commercial banking system dealing in credit of short maturities is in great danger of being overburdened with "slow" paper.

The chief criticism offered in behalf of agricultural interests is that the great majority of farmers' banks are not members of the system, and that they derive benefits only indirectly. This criticism was often heard during the years of depression following 1920 and a Congressional investigation was made to determine the causes for such a small membership among the state banks. The chief reasons advanced for such a large percentage of state banks remaining out of the system are the higher minimum capital requirements ($25,000) and the strictness of the requirements of the federal reserve system as compared with the state banking laws. Also, many bankers object to the so-called "red tape" of the system. They feel that since rediscounting is done only in emergencies the advantage to be gained is not a sufficient inducement to make the necessary adjustments.

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[1] See p. 456.

During 1920 and 1921 there were extended discussions and agitation among the farming interests as to the policy of the Federal Reserve Board in limiting the volume of credit to agricultural communities. It was maintained by many agricultural leaders in and out of Congress that the Federal Reserve Board was discriminating against farmers. The Senate and House of Representatives established a "Joint Commission of Agricultural Inquiry" to investigate this situation along with other possible causes of the farmer's plight.[1] Briefly, the conclusion of the commission was that credit contraction was absolutely necessary and that there was no evidence of discrimination against agriculture, that in fact the Federal Reserve Board and the reserve banks had been more liberal in supplying credit to farming districts than to manufacturing and commercial centers.[2] As a matter of fact, the whole banking system was extended almost to the breaking point and the Federal Reserve Board was simply putting on the brakes.

While it is possible for the board to discriminate against agriculture, the investigation referred to above gives no indication that such was the case in 1920 and 1921. A fundamental misconception of the functions and power of the Federal Reserve Board is involved in the controversy which followed the restrictions on credit by the reserve banks in 1920 and 1921. The opinion seems to have been held by many that the reserve banks could create credit as well as direct its distribution. It is true that the board has power to compel rediscounting among the reserve banks and, therefore, to distribute credit over the country, according to its interpretation of the needs of the various sections. But the great difficulty in 1920 and 1921 was evidently not the poor distribution of credit, but the insufficiency of credit in the whole country to meet the demands of borrowers. It should be remembered in this connection that the government itself had been drawing billions of dollars of the credit resources of the country through the sale of Victory Loan bonds. This not only

[1] See *Hearings of the Joint Commission of Agricultural Inquiry*, Part 13.

[2] See Eliot, Clara, "The Farmer's Campaign for Credit," Chap. 7, for an excellent analysis of the policy of the board toward agriculture during this period.

decreased the credit supply but the desire to sell these bonds at the rate of 4¾ per cent prevented the Federal Reserve Board from raising the rediscount rates as early as it would have under ordinary circumstances. Aside from this great drain on the credit of the country, credit was limited because lenders lacked confidence in the ability of borrowers to repay loans. Lenders were beginning to foresee a slump in the demand for goods and services. It was pointed out in Chap. II that credit is ultimately based on goods and services and that banks mobilize, standardize, and direct credit, but that fundamentally they do not create credit. They help to establish the confidence on which the credit system is based, but the confidence goes beyond the banking system to business transactions involving goods and services. If bank customers are unable to dispose of their goods and services for enough to pay off loans and maintain deposits, the banking system is helpless. When this situation becomes general over the country, as it did in 1920 and 1921, there are two alternatives for the banking system: (1) expand currency, or (2) contract loans. The first alternative, if carried too far is disastrous to the whole credit and monetary system of the country. The second alternative seems a bitter dose for individual farmers and business men, but in this case it was undoubtedly the wiser plan.

SUPERVISION OF STATE AND NATIONAL BANKS

In Chap. XII it was shown that state and national banks are middlemen in transferring purchasing power from lenders to borrowers, that their credit depends largely upon depositors. Without confidence on the part of depositors, the banker's operations would be restricted to his own capital. In fact there would be no banking in the sense that we know banking today. The government has found it necessary to assist in creating confidence in the banking system, and most of the government regulation of commercial banks has centered around the safeguarding of depositors. Bankers make dividends by lending depositors' funds and the temptation to take unnecessary chances with other people's funds is too great. So the government has made certain specifications as to the organization and operation of banks. A state or national bank cannot be organized without meeting the requirements of a special banking law and obtaining the consent of a government official. After the bank is organized it must at all times keep a specific minimum of money for the protection of depositors; it must restrict its loans to specified types; and it must submit all its affairs to personal examinations by government officials.[1]

1. Conditions of Organization

The conditions under which a new bank may be organized are determined in part by the specific requirements of banking laws of Congress and the legislatures and in part by the judgment of the government bank supervisors.[2] The minimum capital requirement, methods of accumulating surplus, and liability of stockholders, as well as minimum number of stockholders and other details of procedure, are definitely specified in the banking law; while the determination of the general qualifications of the applicants and the need for a new bank are left to the discretion of a government official.

Specific Legal Requirements.—The provisions in banking laws which specify the minimum capital and surplus and define the liability of stockholders are designed (1) to insure such volume of business that the bank can be operated economically, and (2) to protect the depositors and other creditors of the bank. If the banker is compelled to invest $50,000, for instance, rather than $10,000, he must have in prospect a much larger volume of loans and investments, and with the larger volume of earning assets it is presumed that he can render banking services at a lower cost per unit. The provision of the national banking law and of some state banking laws for double liability of stockholders inspires a necessary element of caution on the part of the bank officials and gives added security to depositors.

Mininum Capital Requirements.—For national banks, the minimum capital is $25,000 in towns of less than 3,000 population; $50,000 in towns of 3,000 to 6,000 population; $100,000 in towns of 6,000 to 50,000; and $200,000 in cities larger than 50,000. For state banks, the minimum capital required is smaller in many of the states. According to an investigation made in 1909, 20 states, chiefly in the South and West, required a minimum capital of $10,000 or less. For the country as a whole

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[1] Other requirements which it is unnecessary to discuss here in detail are: (1) specification of conditions under which national banks may issue currency. Note issue is optional with the bank, but notes are limited to the amount of paid-in capital stock of the banks and must be secured by an equal amount of government bonds plus a 5 per cent redemption fund maintained in the United States Treasury. (2) Banking laws also prescribe the process of liquidation in case of failure of the bank.

[2] Only a very small number of states do not grant some discretionary power to the banking commissioner.

> . . . 62 per cent of the 11,319 state banks in operation on Apr. 28, 1909, had less than $25,000, and 27 per cent had capital ranging from $10,000 to $15,000.[1]

The indications are, however, that since 1909, and particularly since 1920, the trend has been toward the $25,000 minimum required of national banks.

Surplus.—In addition to a certain minimum capital, national banks are required to set aside as surplus 10 per cent of their net profits until the surplus is equal to 20 per cent of their capital. A similar requirement is made of state banks in about half of the states. Several of the remaining states require a greater or less surplus, while a considerable number have no surplus provision in their general banking law.[2]

Through surplus requirements an additional motive is given the banker to increase the volume of his business. The banker has a larger investment on which to earn dividends and will require a larger volume of earning assets. While some bankers realize the economies of a larger volume of business and would create a surplus voluntarily,[3] others must be required by law to increase the size of their investment. The surplus requirement is also conducive to conservative banking in that it forces the banker to have a large stake in the business. If the banker's investment is equivalent to 20 per cent of his total loans and investments, he is likely to use more care in placing loans than if his own investment in the business is 10 or 15 per cent. The history of state and national banking in this country clearly indicates that a very small investment on the part of the banker in proportion to the total business encourages "wild-cat" banking. At one time bankers were not required to pay in all of their capital, and in some cases state banks actually began operations without paying in any capital.

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[1] Ebersole, J. F., "The Relation of State to National Banks," *Proceedings of the American Academy of Political and Social Science*, pp. 286–290, 1911.

[2] *Ibid.*

[3] Many bankers prefer to increase surplus rather than capital stock in order to avoid the double liability on capital stock. Thus, the surplus item in the statements of many of the larger banks is a very large percentage of the total proprietary interest.

Liability.—Stockholders in national banks and state banks (in most of the states) are subject to double liability. Thus, in case of insolvency the owner of a $1,000 (par value) share of stock may be called upon for an additional $1,000 to pay depositors or other creditors of the bank.[1] One of the advantages of the corporate form of business as compared with the individual or partnership is its limited liability feature, and in the ordinary business corporations stockholders are liable only for the amount of their stock; but since commercial banking involves the use of such a large percentage of funds from outsiders, double liability has been found to be necessary to induce the proper conservatism in loans and investments.

Adequacy of Capital and Surplus Requirements.—A large percentage of the farmers' banks of the country are too small for the most economical operation. The data in Chap. XV indicate the relation between high costs and small volume of business.[2] This is further indicated by the data on bank failures since 1920. Failures among country national banks from 1921 to 1926 occurred chiefly among the smaller banks. Table XXX shows that the average capital (capital stock, surplus, and undivided profits) of the country national banks which failed during the period was about one-half to two-thirds as much as the average for all banks. The difference is still greater if the banks which failed are compared with those which did not fail.

The inefficiency of the smaller banks was obviously prevalent before the trying times of the postwar depression, but it had been concealed by high rates on loans, a good volume of business, and small losses. The depression applied the acid test and the weaker banks were compelled to close their doors. Of course, small volume of business is not the sole cause of failure. Extravagant lending policies and the sudden fall in agricultural prices are usually given as the causes for the wholesale bank failures of the West,[1] but the larger banks were probably equally affected by these conditions.

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[1] Since 1907, several states have adopted what is known as the "guaranty fund" system for the protection of depositors. The "fund" is maintained by all the banks of the state according to their resources. In case of a failure and inability of the bank to pay its creditors, the claims are met from this fund. But the heavy drain upon solvent banks during the period following 1920 almost completely discredited the system, and it has been abandoned in practically all the states. See T. B. Robb "The Guaranty of Bank Deposits," for a description of the system.

[2] See Table X.

TABLE XXX.—COUNTRY NATIONAL BANKS WHICH FAILED, 1921 TO 1926, IN CERTAIN AGRICULTURAL STATES[1]

States	Average capital of all country national banks[2]	Average capital of country national banks which failed	Number of failures	Percentage of total number of country national banks which failed
Iowa	$108,680	$57,935	31	9.3
Kansas	95,785	62,500	6	2.4
Montana	99,756	52,736	53	47.4
North Dakota	64,800	30,875	40	23.2
Texas	147,000	94,792	24	4.4

[1] Comptroller of the Currency, *Ann. Repts.*

[2] Capital, surplus, and undivided profits.

The system of setting a flat minimum capital for all banks in towns of certain limits of population may be criticized from two points of view: (1) the population of the town is not an accurate measure of the amount of banking business in the community, and (2) there is a tendency for the minimum to become the maximum. The population of the town does not indicate the population of the banking territory, since some very small towns have wide trade territories and the larger towns sometimes have very small trade territories. But even if the population of the whole banking territory should be taken into consideration it would not be an accurate measure of banking business. The gross income of the community would be a much better measure. Or if the community already has one or more banks, the amount of banking business could easily be determined by calculating the average amount of bank loans and investments made in the community.

The tendency of the legal minimum of capital to become the maximum is probably a more vital criticism. Presumably the minimum capital requirement was designed for banks which were to be established in towns where no bank existed, but actually the second, third, and fourth banks have often been established with the same capital. In 1900, the minimum capital for national banks in towns of less than 3,000 population was reduced from $50,000 to $25,000. From 1900 to 1920, the total number of national banks in the country was increased by more than 100 per cent—from 3,372 to 8,093. More than one-half of these new banks were organized with exactly $25,000 capital, and a total of 2,768 had less than $50,000 capital.[1] It is scarcely conceivable that all of these banks were organized in bankless communities. The indications are that a very large percentage of them were located in towns which already had one or more banks.

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[1] See GARLOCK, FRED L., "Bank Failures in Iowa," *The Journal of Land and Public Utility Economics*, January, 1926.

Probably a different minimum should be set for banks being established in bankless communities and for banks being established in communities which already have one or more banks. Certainly, the uniform minimum requirement has been conducive to the overbanked condition in which practically all agricultural states found themselves after 1920. An alternative to this plan of raising the specified minimum for the additional banks is to give the government supervisors authority to set a minimum on the basis of conditions in each community at the time applications are made.

Not only is the uniform minimum undersirable, but the present minimum capital requirement is too low. Most of the sparsely settled areas to which the $10,000, $15,000, and $25,000 minima were adapted 25 years ago have been settled. Also, good roads and automobiles have reduced distances to the point that there remain only very exceptional cases in which there is valid reason for banks of these sizes.

Furthermore, the minimum capital should be increased because of the increase in the money value of products and services since 1900. The average wholesale price of farm products in the United States increased about 61 per cent from 1900-1904 to 1922-1926, while the average price of all commodities increased about 83 per cent.[2] Farm wages were about 73 per cent higher in 1923 than they were in 1910.[3] The general price level of goods and services in farming communities seems to be fairly well stabilized at from 60 to 75 per cent above that of the first decade of the century. To be conservative, suppose the price level of goods and services of country-bank customers has increased only 50 per cent. Then the $25,000 minimum for national banks in 1900 should be raised to $37,500 for this reason alone. Again, if the more dense population of the community has increased the physical volume of products and the amount of services by 50 per cent, this should be sufficient cause to raise the minimum capital for banks by $12,500 more, placing the minimum at $50,000.

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[1] CHAPMAN, JOHN M., and RAY B. WESTERFIELD, "Problems in Banking, Money and Credit," p. 502.

[2] Index Number Series of the Bureau of Labor Statistics. The yearly index was averaged for the five-year periods.

[3] WARREN, G. F., and F. A. PEARSON, "The Agricultural Situation," p. 225.

Some of the states have adopted the policy of requiring banks to accumulate a surplus equivalent to 50 per cent of their capital. This seems to be a practical method of compelling the operation of larger banking units so far as it goes. Of course, an increase of the banker's investment from $15,000 to $22,500 would not result in a very large banking unit. It must be remembered, also, that double liability does not apply to surplus and, therefore, the greater the surplus in relation to the capital the weaker the position of depositors and other creditors.

Discretionary Powers of Supervisors.—Although national and state laws specify certain prerequisites to the organization of a bank, all national bank supervisors and the state bank supervisors in most of the states may refuse a charter.[1] Applications may be refused because of the type of men applying or because of lack of need for a new bank in the community. Before granting a charter for a new national bank the Comptroller of the Currency assures himself that the applicants are capable of conducting a banking business and that they will comply with the banking regulations of the government. Information is obtained through sworn statements of the applicants, reports of bank examiners, and in some cases through special reports of disinterested persons. Determination of the character of applicants for state bank charters is made in a similar manner, except that in some states the investigation is not so thorough.

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[1] Prior to 1920 there was a considerable number of states which gave the banking department very little authority in the matter of establishing new banks. That is, if the general requirements of the banking law were met the charter was automatically granted, as in the case of any other business corporation. But the experiences of the postwar depression have led to much state legislation on banking. This legislation has taken the form generally (1) of greater restrictions on organizing new banks and (2) of granting more discretionary power to banking commissioners in refusing charters. Among the states which have passed laws since 1920 giving bank supervisors more power in refusing charters for new banks are: Arkansas, Iowa, Mississippi, Missouri, Nebraska, South Carolina, Virginia, and Wisconsin.

Need for New Banks.—A far more intricate problem of the government banking department is that of determining the need for a new bank. Government supervisors consider primarily the existing banking resources in relation to the present and prospective banking business of the community. But prior to 1920, charters were frequently granted on the judgment of the applicants as to the need for a new bank on the basis of expectation of the development of business which never materialized. The desire to encourage "wholesome competition" accentuated the general liberality of banking departments in permitting the organization of new banks. As a result, the country was greatly "overbanked" during the period from 1900 to 1920. The number of national banks was increased from 3,732 to 8,093 and the number of state banks from 4,369 to 18,195.[1] The failure of 478 national banks and 2,588 state banks from 1914 to 1926 has led to far more accurate methods of determining the need for new banks.

Since so much of the inefficiency of banking in agricultural towns has arisen from a more or less haphazard policy of permitting the organization of two or more small banks per town, it will be worth while to discuss in some detail the bases for determining the need for new banks. The adequacy of banking facilities depends (1) upon the relation of bank capital[2] to bank loans and investments, and (2) the volume of business which is the most desirable operating unit for banks in the community under consideration.

Obviously, sound banking requires that a conservative ratio of bank capital to loans and investments be maintained for the protection of depositors and other creditors of the bank. The figures in Table XVI, Chap. XV, are enlightening at this point. In 1914, the average loan-capital ratios of the country national banks in the thirteen agricultural states ranged from 2.41 to 4.22, while in 1921, the ratios ranged from 3.33 to 6.38. This indicates roughly an increase of about 50 per cent in the ratio. In other words, bankers had been permitted to make enormous increases in their loans without corresponding increases in bank capital. This means of course that deposit liabilities had a much narrower basis of security in bank capital. Many bank failures could have been prevented had bankers been compelled to increase their own capital in keeping with the increase in loans. But this is a matter of regulating loans which will be taken up later. The point here is that the bank supervisor should know about what ratio is desirable in his territory and use it as a basis for determining the adequacy of banking facilities of a town. Suppose the total paid-in bank capital and surplus of the community is found to be $200,000, and that it is distributed among three banks: one bank has $125,000, another has $50,000, and the third has $25,000. Then, the figures on bank capital should be compared with total bank loans and investments. For illustration, assume that the total bank loans and investments of the community amount to $1,200,000, or a ratio of $6 of loans and investments to $1 of bank capital. But suppose banking experience in this particular state has shown that this ratio should not be greater than 5 to 1. The indications are then that some $40,000 more bank capital would be desirable for the community. This either calls for a new bank or an addition to the capital of those already operating.

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[1] National Monetary Commission, "Statistics on Banks and Banking in the United States," p. 21, and "Statistical Abstracts of the United States."

[2] Bank capital here includes capital stock, surplus, and undivided profits, *i.e.*, the entire investment of the owners of the bank.

This brings up the second question above: How large should a bank be under given local conditions to be able to operate most efficiently? Will the community under consideration be served better if another bank is organized, or should the existing banks increase their capital? Under the loan-capital ratio of 5 to 1 the smallest bank can have only $125,000 in earning assets. If this amount is lent at 6 per cent, the gross earnings per year are only $7,500. In order to earn 8 per cent, or $2,000, dividends on its capital, this bank would have to restrict expenses and losses to $5,500 per year. It is obvious that after the inevitable losses are deducted and rent, taxes, and incidental operating expenses are paid, there is little left to employ an efficient manager or cashier. But if the capital is increased to $100,000 and earning assets to $500,000, the gross earnings are increased to $30,000. This increase in earning assets is not likely to quadruple rent, taxes, and incidental expenses. A larger amount is left for paying salaries of more efficient employees, or for paying higher dividends. Still further economies may be achieved by increasing the capital to $200,000 and earning assets to $1,000,000. After this volume is reached, it is conceivable that in a small town where rent, taxes, and salaries are relatively low the banker would not realize any very great economies by further increasing the volume of the business. That is, in order to handle the additional volume of business it might be found that the increase in the number of employees, the cost of new equipment, the increase in rent of a larger building, and other costs would absorb the additional income. It should be the business of the banking department to know approximately what the most economical size of banking unit is in the different types of communities.

In the hypothetical case above, it is obvious that an increase of capital of the two smaller banks would be far more economical than the chartering of a new institution. The question arises as to how existing banks can be induced to increase their capital. It is likely to be necessary in many cases to induce increases in capital by restricting the banks to a certain loan-capital ratio. With the additional loans available, the bank or banks which have the greatest advantage in increased volume of business would supply the needed capital.

It is very difficult to determine the most desirable loan-capital ratio and the volume of business which can be handled most economically by a banking unit. Both factors vary greatly under different conditions. The most desirable loan-capital ratio is affected, for instance, by the proportion of bank deposits which are time and demand deposits.[1] If the percentage of time deposits is very large, a larger volume of loans can be handled with safety. Also, the ratio can safely be increased if a large percentage of the loans and investments are of such nature that they can readily be turned into cash. Similarly, the general soundness of loans and investments affect the ratio. With a high degree of certainty of payment of loans, the ratio may be made higher.

The most desirable volume of business per bank also is affected by local conditions and prevailing banking practices. The relative importance of such overhead expenses as rent, taxes, and salaries of officials, for instance, would be a very significant factor in determining the proper volume of business. In general, the greater the overhead the larger must be the volume of business to absorb it. Also, the practice of bankers in using machinery in handling clerical work affects the volume of business which is desirable. Bankers who expect to use machinery very extensively must have a considerable volume of business to make it economical.

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[1] The loan-capital ratio will vary also according to the percentage of the proprietary interest which is in the form of capital stock, since surplus and undivided profits are not subject to double liability.

To determine the most desirable loan-capital ratio and the most economical volume of business, state and national bank supervisors must have a thorough knowledge of banking conditions in the different sections of the country. An enormous amount of information is available in the data collected periodically by government supervisors. If these data were properly analyzed, little supplementary information would be needed. This is particularly true of the data collected by the Comptroller of the Currency. Practically everything that can be desired in the way of information on expenses, losses, earnings, volume of loans, amount of capital, bank failures, and kinds of loans and deposits is available in the regular and special reports of national banks. This material should be analyzed by districts to be of maximum usefulness.

In determining the desirability of establishing a new bank the government supervisor must consider also the probable future increase in the banking business of the community. In the case presented above, it was assumed that $1,200,000 of loans and investments measured the permanent needs of the community. As a matter of fact, the loans needed the next year might amount to $1,400,000, and the next, $1,700,000, or again the need may decrease. That is, banking departments must study the growth of banking needs of the community. Probably the best index of the future trend of the banking business of a community is the trend in the recent years as shown by the growth of loans and investments of the banks. Any estimate of future business, however, must be based in part upon a consideration of the possible expansion of the business of the community. Is the crop area of the community increasing, and how fast? Is the number of livestock produced increasing? At what rate is the town itself developing and is the development likely to continue? Are prices of commodities produced in the community likely to be fairly stable at the present level?

2. Reserve Requirements

Federal and state banking laws specify minimum cash reserves which must be maintained by banks for the protection of depositors. All country national banks and all country state banks which are members of the federal reserve system are required to maintain a reserve equal to 7 per cent of demand deposits plus 3 per cent of time deposits. Thus, if a bank has $1,000,000 of demand deposits (payable within 30 days) and $100,000 of time deposits (including savings accounts, certificates of deposits, etc., subject to payment on not less than 30 days' notice), the total reserve required by law is $73,000.[1] This reserve must be kept in the federal reserve bank of the district. Of course the banker finds it necessary to keep a minimum supply of cash in his own vault, but so far as the law is concerned he is free to use his own judgment as to the amount that should be kept. Legal reserves for state banks which are not members of the federal reserve system vary among the different states from 10 to 20 per cent on demand deposits and from 4 to 15 per cent on time deposits.[2] In general, there seems to be more freedom among non-member state banks as to the form of the reserve and the place at which it must be kept. Usually, balances with other banks may be considered as a part of the reserve.

Government regulation of reserves seems to be indispensable to the proper functioning of the banking business in this country. As the requirements of a minimum capital and surplus and double liability on capital are designed in part to protect depositors and other creditors of the bank in case of insolvency, or to prevent insolvency, so the legal minimum reserve is designed to restrain the banker in such way that he will be able to maintain the confidence of the public. The maintenance of a conservative loan-capital ratio contributes to the ultimate safety of depositors and creditors, while the cash reserve is designed to meet the daily demands of depositors.

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[1] The reserve is computed on a monthly basis. It is an average of daily balances. In the above illustration, for instance, the banker could have an average balance of $60,000 with the federal reserve bank for the first half of the month and an average of $86,000 during the second half and still be within the law.

The reserve for members of the federal reserve system is computed as follows:

1. Net demand deposits—(*a*) all deposits, other than United States government and bank deposits, payable within 30 days and (*b*) the net balance due to other banks. (In case other banks owe the bank more than it owes all other banks, (*b*) is not considered in calculating net demand deposits).

2. Time deposits—certificates of deposit, postal savings deposits, regular savings accounts, and any other deposits payable only after 30 days.

For forms used in calculating reserves, see W. D. Gordon and J. Lockwood, "Modern Accounting Systems," p. 184.

[2] See Fitzgerald, J. Anderson, "Making Use of a Bank," p. 300.

3. Regulation of Loans

As the safety of deposits depends ultimately on the character of loans and investments made by the bank, national and state banking laws place certain restrictions on the amount and kind of loans and investments which can be made. In the first place, all national banks and most state banks are restricted in the amount they can lend on real estate and in the amount of real estate they may own. Real-estate loans in large quantities are considered undesirable because of their lack of liquidity. Also in some cases they are considered speculative. National banks may own only such real estate as is necessary in the transaction of their business. This includes buildings and lots occupied by the bank and real estate obtained through the collection of debts previously contracted. Real estate obtained under the latter condition may not be held more than five years. State banking laws are generally more liberal in restrictions on the ownership of real estate. National banks not located in central reserve cities may make loans on real-estate mortgages aggregating 25 per cent of their capital and surplus, or one-third of their time deposits in case the latter amount is larger than the former. Such loans may not be made for more than five years, nor may they be secured by real estate valued at less than twice the amount of the loan. The prevailing limit of real-estate loans for state banks seems to be 50 per cent of their capital and surplus.[1]

In the second place, banks are limited as to the amount which they may lend to any one person or firm in order to assure a wider distribution of risks. The limit for national banks is 10 per cent of their capital and surplus, or to 30 per cent of their capital stock in case the former amount is greater than the latter.[2] State banking laws are commonly more liberal in that the limit is higher and more exceptions are made. Many states permit as high as 15 to 30 per cent of the amount of capital and surplus to be lent to one individual or firm, while a few states have no limitations.[1] While national and state banks alike exclude bills of exchange and commercial paper owned by the negotiator in calculating this minimum, some states also exclude real-estate loans, others exclude loans secured by warehouse receipts, and a considerable number exclude loans on collateral security.

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[1] Ebersole, J. F., *op. cit.*

[2] Bills of exchange and commercial paper owned by the negotiator are not included in setting this limit.

In the third place, national banks are forbidden to make loans on the security of the shares of their own capital stock, unless such loans are made for the purpose of preventing a loss on a debt previously contracted. This restriction is based largely on our banking experience prior to the Civil War when bank stockholders were not required to pay in all of the capital. Stockholders often borrowed money on their stock to pay it out, and of course had little or no actual investment in the bank.

Power of Bank Supervisors over Loan Policies.—In addition to the specific provisions of banking laws concerning loans, the Comptroller of the Currency and the state banking commissioners exercise some control over the lending policies of the banks. At the time of the annual or semi-annual examinations of the bank, the government examiner calls attention to weaknesses. If loans are found which have been made with insufficient security, the officials of the bank, and sometimes the directors, are advised of the dangers and suggestions for improvement are made. But the government banking departments act largely in an advisory capacity in such matters, in so far as the bank has not actually made loans which are contrary to specific provisions of the banking law. Nevertheless, the advice of the examiners and of the state and federal banking departments has a salutary effect upon the policy of most bankers. A more specific definition of the powers and an extension of the powers of supervisors in this connection would be desirable.

The function of government supervision of bank loans as described above has to do chiefly with specific loans and specific types of loans, and little or nothing to do with the general lending policy of the banks of the whole country or a particular section. That restraint should be exercised in periods of super-prosperity is beyond question. It was pointed out above that the Federal Reserve Board has exercised this function. But, as a matter of fact, the decisions of the Reserve Board do not have sufficient influence with the isolated banks of the country. During a prosperous period the great majority of the country banks are not greatly affected by the rates of the reserve banks. They become self-sufficient so far as loanable funds are concerned. In fact it is the oversupply of loanable funds which tempts the small banker away from his usual conservatism in making loans.

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[1] Ebersole, J. F., *op. cit.*

Our experience with bank failures from 1921 to 1926 shows the folly of extravagant lending policies in prosperous times. Bankers become overanxious to make big dividends during prosperous times and expand their loans beyond a safe ratio to their capital. The country national banks in Arizona, for instance, increased their loan-capital ratio from 3.85 to 1 in 1914 to 6.22 to 1 in 1921. In 1926, the ratio was 8.56 to 1.[1] Thus the bank capital back of each dollar supplied by depositors and other creditors of these banks was probably reduced during this period by more than one-half. This is only one example. Doubtless there are individual cases of national and state banks in various states in which the ratio of deposits and credits to bank capital was far higher than 8 to 1. It must be remembered that the bank is a public service organization and that its dividends are earned largely by lending funds which belong to individuals of the community. The state supervisor of banks in one of the Western states made the following statement in this connection in 1928:

> The competition of taking hazards with depositors' money cannot be looked upon with favor in the light of past experience. Since the state has the right to supervise these institutions in every thinkable way as to policies, programs, the personality of its officers, the amount of salaries it may pay them, and the amount of interest it may collect, nothing remains on a competitive basis except as to which will go the furthest in hazarding funds to applicants for loans.

4. Reports and Examinations

State and national banks are required by government supervising officials to make reports and submit to examinations of their financial condition from time to time. In general, reports and examinations are designed to reveal any discrepancies between the practices of bankers and the specifications of banking laws in regard to capital, surplus, reserves, and lending policies.

[1] See Table XVI, Chap. XV.

Specifically, they serve two other purposes. First, they inform customers of the financial condition of the bank and thus tend to create public confidence. Second, they tend to prevent the creation of unsound and unsatisfactory conditions in the banks. Government supervisors are able to detect tendencies to overstep any of the specifications of the banking laws and warn the directors of the bank to remedy the situation. Also, the reports and examinations have come to be used as a basis for advising bankers on business policies which may not be specifically named in the banking laws. After an examination of the notes held by a bank, for instance, the banker may be advised to call for more collateral on certain loans or to liquidate at the earliest possible moment certain loans which seem unsound.

The periodical reports required by the government include sworn statements of bankers themselves as to their condition, while examinations are made by officials of the government who actually go to the banks and make detailed investigation of their affairs.[1] National banks are required to make at least three reports in the form of general financial statements each year, and two reports which are more of the nature of an operating statement. The former is an itemized statement of assets and liabilities on some date prior to the date of call, while the latter includes statements of the amount of dividends which have been declared and the net earnings in excess of these dividends, as well as an itemized statement of the expenses of the bank since the last report. In addition to these reports required regularly of all national banks, the Comptroller of the Currency may call for a special report from any bank at any time that conditions seem to warrant. Similar reports are required of state banks, except that statements of earnings and expenses are not included in most of the states. Also, there is considerable variation among the states as to the number of regular reports which are required. In recent years, however, the number and time of reports are tending toward the standard set for national banks because of the advantages of having a simultaneous report of the condition of all banks. Through cooperation between the

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[1] Suggestions for the unification of bank examinations, as well as other improvements on present methods, may be found in R. H. Montgomery, "Auditing Theory and Practice," 3rd ed., Vol. II, pp. 8–35; for a full description of the processes of a bank examination, see J. I. Millet, "Bank Audits and Examinations."

Comptroller of the Currency and state superintendents of banking, the *Annual Reports* of the former include summary statements for state banks as well as national banks.

Personal examinations of state and national banks are made by government officials (1) to obtain more complete information than that given in the reports, and (2) to make an independent appraisal of the assets and liabilities of the bank. For instance, the banker may report $100,000 in loans secured by "collateral other than real estate." By way of getting more complete information, the examiner ascertains the quality of the collateral. Is it readily salable? What is its present market value in relation to the amount of the loan, and is it subject to rapid depreciation in value? By way of testing the accuracy of the appraisal made by the banker, the examiner checks over the notes and collateral. To satisfy himself that the notes have been legitimately executed, he may call upon signers of the notes to attest their correctness. To determine the salability and value of the collateral he may likewise make an investigation outside of the bank. Thus the examiner investigates the different items of assets and liabilities of the bank. Ordinarily, he starts by counting the cash, then he inspects the checks and items due from other banks, loans, discounts, security investments, and real estate and other fixed assets. Similarly, he inspects and certifies deposit accounts, items due to other banks, and the capital and surplus.

For the examination of national banks the Comptroller of the Currency maintains a staff of examiners in each of the 12 federal reserve districts. Each bank must be examined twice each year and some banks whose condition is uncertain must submit to special examinations from time to time. The federal government pays the salaries of examiners, as well as the expenses of the comptroller's office, while the immediate expense of examinations is paid by the banks in proportion to their resources. In general, examinations of state banks are similar to those of national banks, although in many states they are less frequent and less thorough. State banks which are members of the federal reserve system may be inspected by both state banking examiners and federal reserve bank examiners, although the federal reserve bank accepts the examinations of state officials in those states which maintain an efficient system of bank supervision.

5. CONCLUSIONS

From the point of view of the agricultural industry in many sections of the United States there are two shortcomings of commercial banks: (1) they charge too much for credit; and (2) failures are too frequent. Data presented in Chap. XV indicate that farmers in the West and South pay an unduly high rate of interest in view of the type of security they offer. It was noted that banking costs are higher in these regions than in the North and Northeast largely because of inefficient banking, rather than the excess of losses on loans. It was noted further that the inefficient banking system is based on high, customary rates of interest and low bargaining power of borrowers.

In addition to high rates of interest, Western and Southern farming communities are victimized by frequent bank failures during periods of business depression.[1] A bank failure is a shock to the credit system of the community. It may mean losses to stockholders and depositors, but probably the most significant result is the loss of confidence in the credit system and the consequent hindrance to its operation. Individuals hesitate to supply capital and deposits for the proper operation of the banking machinery of the community.

But what does the government have to do with interest rates and bank failures? Is it the function of the government to assist in remedying the situation? If we assume that it is, what legislation and what administrative policies can be devised to get the desired results? In other words, what can the government do to force a reduction in banking costs and to assure bank customers that the advantages will be passed on in the form of lower rates and fewer bank failures?

Not many people question the desirability of some government regulation and supervision of commercial banks. It was determined long ago that in this particular branch of business free competition is insufficient to guarantee a desirable type of service for the community. It was decided that there should be some limitation placed on the number of banks which should be organized and some restriction as to loans and reserves. But government regulation of state and national banks prior to 1920 was restricted largely to setting minimum capital requirements (often far too low), setting a minimum for reserves, prescribing certain rules as to the amount and kind of individual loans, preventing fraud or defalcation of bank officials, and exercising a mild sort of restraint to prevent the unnecessary organization of new banks. The organization of new banks and the general lending policies of banks were left largely to the independent judgment of local bankers. The rates charged borrowers were left almost entirely to the bankers. But it happens that these are among the most fundamental bases of the efficiency of the banks in serving the needs of the community. It is on these points that most regulation is needed.

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[1] During the four years, 1920 to 1923, the total number of state and national banks which failed in the New England, Middle Atlantic, and East North Central states was only 100, while the number in all other states was 977. See House of Representatives, *Report* 631, p. 17, Sixty-eighth Congress, First Session.

The expansion of banks from 1900 to 1920 and the collapse of thousands of them since 1920 have thoroughly demonstrated the inadequacy of government regulation in restricting the organization of new banks. The experience has demonstrated that bankers already operating need protection in the prevention of new banks which can hope to get business only by taking it from other banks. It is absurd to expect competition to produce desirable results by adding another bank when the banking business of the community is scarcely sufficient for an adequate volume for the bank or banks already operating. The national government and many of the state governments are beginning to realize the necessity of restricting the number of banks in such a way that each will have the advantage of a desirable volume of business. During the last few years government banking deparments have encouraged liquidation of hundreds of unnecessary banks and the liquidation and consolidation of hundreds of others. But the power granted the Comptroller of the Currency and the state bank supervisors by Congress and the state legislatures to require such dissolution and consolidation is limited too strictly at present. In fact, this power is only advisory. Bankers cannot be compelled to liquidate or consolidate on the grounds of insufficient business. Adverse business conditions, however, have greatly decreased the number of banks and, for the future, the significant factor is that of power to control the organization of new banks. Government bank supervisors at Washington and in most of the states do have this power and they are using it effectively at present. It is to be hoped that this power will continue to be used wisely.

An adequate volume of business can be further guaranteed through a revision of minimum capital requirements. The need for a higher and more flexible minimum was pointed out above.

Country bankers not only need protection against themselves in providing an adequate volume of business, but also they need advice and direction on general lending policies. The busy country banker cannot have the grasp of general business conditions which is necessary in determining whether his policy should be liberal or conservative. In attempting to place their last loanable dollar, country bankers unwittingly assist in their own downfall. As deposits pile up, bankers tend to lend with less care as to security. The better understanding of government officials of general credit conditions should be used more in guiding individual bankers.

But suppose government officials can regulate banking in such way that country banks can enjoy the economies of a good volume of business and a sensible lending policy, what of the rates they charge customers for their services? The provision of ways and means for more economical operation may simply lead to greater dividends for bankers. To be consistent, the government which provides the opportunity for a successful banking business must see that the community as a whole gets its share of the benefits, since the ultimate aim of all bank regulation is to secure adequate and efficient banking service for the community. It must be remembered also that the mere provision for a good volume of business does not assure banking efficiency. If the banker has the advantage of a customary rate of 10 per cent interest on loans, his efficiency might be adjusted to this high rate in spite of the government's protection of his volume of business. In order to prevent a waste of its own efforts in providing an opportunity for the banker, the government must see it through by seeing that the advantage is not wasted in inefficient bank management or abnormally high dividends. It is one thing to safeguard the banker and his depositors and thus establish the basis for banking service to the community, and it is quite another to see that the community gets banking service at a reasonable cost. The borrower is interested in the rate he must pay to use capital. After all, credit performs an important function in production and it would seem that its cost to the borrower would be of paramount significance.

The lack of equality between country bankers and borrowers in bargaining power was pointed out in Chap. XVI. Merchants and manufacturers who have access to banking facilities of the larger cities have the advantage of borrowing from bankers who have been forced to reduce costs to a minimum in order to make loans at rates offered by powerful competitors. In fact, they borrow from bankers whose rates readily vary according to the government-prescribed rates of the Federal Reserve Board. But country bank rates are apparently not affected by the fluctuations of rates in the large cities.

When we consider the bargaining power of the small-town banker in relation to that of most of his customers and the recognized function of the government in regulating various phases of the banking business, it seems only logical that a maximum rate should be set and enforced by supervising authorities. The government would necessarily have to adjust the rate to the size of banking units in such a way that with efficient management the restriction on rates would not be too burdensome. Moreover, the maximum should be set on a sliding scale so that higher rates could be charged on petty loans. Also, a larger maximum would probably be necessary in small communities which have insufficient business to maintain a bank on the ordinary charge. The maximum rates of the present usury laws should be revised according to changes in credit conditions which have occurred since the laws were passed. Furthermore, new methods of enforcement are necessary. The infraction of usury laws is seldom reported, partly because of the fear of the borrower that the banker will discriminate against him in the future. Probably, this situation could be improved if the state banking department would take the initiative in bringing cases of usury before the courts. Inspection could be done with little difficulty by the regular bank examiners. Possibly, the proper penalties could be assessed and enforced directly by the banking department at the instigation of the examiner.

Questions and Problems

1. *a.* Explain the methods used by the Federal Reserve Board to control interest rates.
   b. Does such control apply to all loans in all parts of the country? Explain.
   c. Can the board control the business activity of the country through its regulation of interest rates?

2. Using the experiences of 1920 and 1921 as an example, show how the Federal Reserve Board regulates money and credit.

3. Outline the more important provisions of the Federal Reserve Act which deal with agricultural credit.

4. From the point of view of the agricultural industry, what are the chief criticisms of the federal reserve system?

5. Why is government regulation of state and national banks more necessary than government regulation of retail merchandising?

6. Outline briefly the different phases of government supervision of state and national banks.

7. *a.* What are the purposes of the minimum capital and surplus requirements of banking laws?
   b. Are these requirements adequate at present? Explain fully.

8. Explain in detail a method by which the need for a new bank in a country town can be determined.

9. *a.* Contrast the purposes of the legal reserve requirement and a desirable loan-capital ratio.
   b. How is the reserve calculated for national banks?

10. *a.* To what extent are the loan policies of state and national banks regulated by the government?
    b. Should such regulation be more thorough? Explain.

11. *a.* What are the purposes of bank reports and examinations?
    b. What are the chief items included in reports of national banks?
    c. Why are examinations necessary in addition to reports?

12. *a.* Suggest methods by which the government may induce bankers to reduce interest rates to farmers.
    b. Suggest methods by which bank failures may be reduced.
    c. In your opinion, is it desirable for the government to use such methods as are suggested in this chapter for reducing interest rates and decreasing the number of bank failures?

References for Further Reading

BURGESS, W. R., "The Reserve Banks and the Money Market," Chaps. 10 to 13.

ELIOT, CLARA, "The Farmer's Campaign for Credit," Chaps. 5 and 7.

MITCHELL, WALDO F., "The Uses of Bank Funds," Chap. 6.

MOULTON, H. G., "The Financial Organization of Society," 2d ed., Chaps. 23 and 25, or 1st ed., Chaps. 24 and 26.

PHILLIPS, C. A., "Bank Credit," Chap. 17.

ROBB, T. B., "The Guaranty of Bank Deposits."

SCOTT, W. A., "Money and Banking," 6th ed., Chap. 12.

WILLIS, H. P., and G. W. EDWARDS, "Banking and Business," Chaps. 14 and 27.

CHAPTER XIX

GOVERNMENT AND THE FEDERAL FARM-LOAN SYSTEM

The inadequacy of commercial banks and private mortgage and cattle loan companies in doing the banking business required by agriculture was recognized by the federal government during the first and the second decades of the twentieth century.[1] It was recognized that the agricultural industry differed sufficiently from other industries to require a special banking system. As a result, the government, in 1916 and 1923, initiated a nation-wide system of agricultural banks. The aim of the system is to provide adequate credit at a low cost.

Assurance of credit for farmers at a low cost is made by (1) larger-scale banking units, (2) sale of standardized securities, (3) tax exemption of securities, and (4) maximum rates which may be charged on loans. To make low rates possible, the government considered it necessary to retain almost complete control of the system. That is, the government set the low rate and then had the necessity of finding investors for an enormous volume of securities at a low rate of interest. Since private investors, not the government, furnish the credit the government must operate the system at a low cost and it must make the bonds attractive. It provides for low costs through large-scale operation and it provides attractive investments through safe loans and the tax exemption of bonds.

GOVERNMENT AND THE SALE OF BONDS

In order to sell farm securities in adequate quantities and at low rates of interest, the government has assumed the function of creating and standardizing a safe security. A large proportion of the provisions of the laws and the discretionary powers granted to the government supervising officials are thus designed to make a permanent and ready market for farm securities. If we take cross-sections of the Acts of 1916 and 1923 and the regulations of the Federal Farm Loan Board, this central aim becomes obvious.

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[1] See Chap. XI.

Conservative Loans.—The law specifically provides that neither federal land banks nor joint stock land banks may lend more than 50 per cent of the value of the land and 20 per cent of the value of improvements. The real problem here is that of placing the correct value on the property. In this matter the government is not content with the valuation placed by the local farm-loan association or even of the officials of the federal and joint stock banks, but appraisals must be made and applications approved by direct representatives of the Federal Farm Loan Board. Not only does the board appoint the appraisers for each district, but also it maintains so-called reviewing appraisers who travel from district to district inspecting and verifying the work of the regular appraisers and the local and central bank officials. Loans cannot be made without the approval of government appraisers and the board supervises their policies. Similarly, loans made to cooperative marketing associations by intermediate-credit banks must be approved by federal appraisers. The valuation of the commodities represented by warehouse receipts, or of livestock represented by shipping documents or mortgages, must be conservative and the loan must not exceed 75 per cent of the value. The law specifies that commodities on which loans are made must be "staple" and the board determines what shall be included as "staple."

The Federal Farm Loan Board has the authority to make certain specific regulations as to the kind of farm property which is eligible as a basis for loans. Thus, for instance, lands which are valuable only for orchard purposes have been declared ineligible, lands subject to fixed drainage charges must be valued at a lower figure according to the amount of the charge, and so forth. The board has defined the phrase "staple agricultural products," which is used in the Act of 1923 to indicate the commodities eligible as a basis for loans to cooperative associations, by specifying from time to time what products are to be considered "staple." Other examples could be given, but these indicate something of the control which rests with this government board as distinguished from the officials of the banks which make the loans.

Likewise, the products offered as security for loans from intermediate-credit banks are subject to federal appraisal. The conditions of rediscounting by federal intermediate-credit banks are specified in detail by the Act of 1923, and rediscounts are closely supervised by the board through special examinations and reports.

Approval of Bonds.—Not only do appointees of the board appraise the property before loans are made, but also officials of the Federal Farm Loan Bureau scrutinize all loans submitted to be used as the basis for a bond issue. Thus, even though the loan seemed entirely satisfactory at the time it was made, it must be considered a sound loan at the time it is offered by the land bank as a basis for bonds. The land might have depreciated in value to such an extent that there is an insufficient margin between the amount of the loan and the value of the farm; or the borrower might not be keeping up his payments.

Liability of Banks.—The laws creating the federal farm-loan system provide for the protection of investors further by requiring double liability on capital stock of the banks in all cases except that of the intermediate-credit banks whose stock is owned by the United States government. Also, surplus and undivided profits serve as security to bondholders, and specific requirements for the accumulation of surplus are made.[1] The banks are also restricted in the amount of bonds they may sell according to the amount of their capital and surplus. Federal land banks are restricted to a ratio of 20 to 1, joint stock banks are restricted to 15 to 1, and federal intermediate-credit banks may not sell bonds beyond the ratio of 10 to 1.

Bonds of federal land banks and intermediate-credit banks are protected further by the liability of each bank for the other eleven banks in its system. By including this requirement, Congress emphasized the unity of the nation-wide system. This provision gives investors confidence and tends to prevent discrimination against the bonds of any particular bank. It adds to the strength and stability of the system.

Reports and Examinations.—All banks of the federal farm-loan system must submit to examinations by officials of the Federal Farm Loan Bureau and make regular reports to the board, with the exception of the national agricultural-credit corporations and rediscount corporations which are under the supervision of the Comptroller of the Currency. Federal and joint stock land banks and intermediate-credit banks make frequent[2] reports of their financial condition and submit to at least two examinations each year. Besides investigating the financial condition of the bank itself, examiners or the so-called reviewing appraisers make investigations of the value of the property mortgaged.

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[1] See Chap. XIII.

[2] Once each month in the case of federal land banks.

Government Control of Personnel of Banks.[1]—The original plan of the sponsors of the federal farm-loan system was for the borrowers to take control of the federal land banks after the initial period of government control. Federal land banks were to become farmer-controlled banks. The dream of a cooperative system of farmers' banks somewhat on the order of the European cooperative credit societies which American commissioners had studied[2] was to be realized. Borrowers were members of the local loan associations and the associations of each of the twelve districts would elect directors of the federal land banks. But amendments were made in 1923 which definitely retained control in the hands of the Federal Farm Loan Board, *i.e.*, in the hands of the federal government.

The board has control of the personnel of the federal land banks in that it appoints four of the seven directors. Three men known as local directors are elected by the local farm-loan associations; three men known as district directors are appointed outright by the board, and the seventh director is appointed by the board from a list of three men receiving the largest number of votes for directors at large from the associations. This might appear to give the associations equal power to that of the board, but as a matter of fact the preponderance of power is with the board. The board has a choice of the three men presented by the associations, and this "seventh director may be removed by the Federal Farm Loan Board for neglect of duty, incapacity for work, or malfeasance in office . . . "[3] The latter provision seems definitely to leave control with the board.

Congress has retained such control for the board largely on the basis of the belief that " . . . bonds of federal land banks could not be sold in sufficient quantity and at satisfactory rates if borrowers were in control of the banks."[4] In this connection the *Annual Report* of the board for 1917 contains the following statement:

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[1] See ELIOT, CLARA, "The Farmer's Campaign for Credit," pp. 80–85.

[2] See Chap. XI.

[3] *Federal Farm Loan Act*, Sec. 304, as amended in 1923.

[4] Institute for Government Research, "The Federal Farm Loan Bureau," p. 45.

> It is doubtful if the direct management and control of any bank which is dependent upon borrowed capital for its continued operation can be safely delegated to the borrowers from such bank.

It is obvious that borrower control is normally conducive to liberal loans, and a too liberal loan policy would endanger the market for bonds. The original opinion that the federal land banks would become farmers' cooperative organizations has been largely discarded because of the lack of interest shown by borrowers. It was hoped by the founders of the system that the members of the local associations would cooperate not only in financial affairs but also in other ways, such as the sale and purchase of commodities and supplies. But very little cooperation even in the matters involved in the operation of the local financing agency has been in evidence. Herbert Quick, one of the original members of the board, has the following to say in this connection:

> The rule in the farm-loan association is that they organize, they hold their meetings and they get their money, and when they do that they are done; they never have another meeting at which there is a quorum.[1]

Neither the prospect for dividends on stock nor the chances for loss of stock have been sufficient to retain the active interest of borrowers. Under such conditions the associations are not in a good position to select directors to control the land banks. Nor are directors chosen under such conditions likely to use sufficient care in maintaining high standards for loans.

Work of Standardization of Securities.—The next step in the development of a wide market for farm securities after the creation of a sound bond is the standardization of the bond. If the banks in each of the twelve districts were permitted to operate more or less independently, there would undoubtedly be twelve rather distinct types of bonds issued.[2] The government has achieved standardization of the bonds issued by the banks (1) by certain specific provisions of the Farm Loan Act applicable to all banks of the system and (2) by centralizing the control of the system in the Federal Farm Loan Board.

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[1] *Hearings before the House Committee on Banking and Currency*, Sixty-seventh Congress, Fourth Session, H. R. 13125, p. 92.

[2] Of the many bills providing for a new farm-mortgage banking system which were introduced in Congress just prior to the passage of the Federal Farm Loan Act, the Moss-Fletcher Bill provided for a decentralized system of land banks with a minimum capital of $10,000.

The Act specifically provides that the ratio of loans to value of property shall be the same for all federal and joint stock land banks. Similarly, uniform requirements are made for intermediate-credit banks. Uniformity in appraisal of value is achieved by the general statement of the basis on which property must be valued and by the power given the board to appoint appraisers for the whole country. Appraisals are further unified and standardized by the reviewing appraisers. The Act contains certain definite specifications, such as the methods by which loans are to be paid, the methods of issuing and calling bonds, and the kind of security back of bond issues.

But probably the most important factor in unifying the whole system and in making it possible to offer a highly standardized security in the investment market is the power of the board over the 12 regional banks.[1] If a given bank should get out of line in its policies, the board can change the personnel of the bank sufficiently to make it cooperate with the system. Uniformity of practice is greatly furthered by frequent conferences of the presidents of the twelve banks in Washington with the board. At these meetings matters of general policy are considered, and the board has an opportunity to explain its policies.

TAX EXEMPTION

In its anxiety for the successful sale of bonds of federal and joint stock land banks and intermediate-credit banks,[2] Congress exempted them from federal, state, municipal, and local taxation. That is, the holder of these bonds is free from the personal property tax on the bond itself and from all income taxes on interest collected from the bonds. A further concession was made to federal land banks, national farm-loan associations, and intermediate-credit banks. The capital[3] and surplus and income of these banks were exempt from all taxes.[1] Of course the tax exemption of the capital and income of the bank itself does not directly affect the sale of bonds. It simply results in a lower cost of operation of the bank and thus permits lower interest rates to borrowers. This phase of the subject will be considered later.

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[1] This applies only to federal land banks and intermediate-credit banks.

[2] No exemption was made for bonds of national agricultural-credit corporations. These are taxed in the same manner as other "moneyed capital" in the state in which the corporation is located. Also the capital and income of these corporations are taxed in the same manner as are capital and income of national banks.

[3] The capital of joint stock land banks is taxed under the same general rules as capital of national banks.

Effect of Tax Exemption.—The tax-exemption feature of these bonds was designed to assure their ready sale at a low rate of interest. In addition to the various provisions for safety outlined above, Congress hoped to reduce the rate still further by offering a tax-free security. Just how much this feature reduces the rate that must be paid on bonds can scarcely be calculated. It depends upon (1) the type of investors, (2) the prevailing tax laws, (3) the investments with which the bonds must compete, and (4) the condition of the investment market. If the purchasers of the bonds are made up largely of small investors who pay little or no income taxes, the effect of tax exemption of the income would obviously be very small. On the other hand, if the bonds are bought chiefly by large investors whose annual income tax bills are heavy, the tax exemption feature of the bonds would be very significant. Again, in states which have no income tax laws and at times when the state and federal income tax rates are very low the tax-exemption feature is of course less significant.

The effect of tax exemption of the principal of the bond depends largely upon the personal property tax laws of the state in which the investor lives. If the state is strict in assessing bonds, or "money capital," of course investors will be willing to purchase the bonds at a lower rate in order to avoid the tax. Since most of the states are rather lax in assessing bonds of any kind, the advantage of tax exemption could easily be exaggerated.

The result of tax exemption is also affected by the type of securities with which the farm bonds must compete. Thus, this feature gave the bonds special advantage over the mortgages of the private farm-mortgage companies. The mortgages are almost universally taxed since they are recorded with county officials and are easily discovered for taxation purposes. Another illustration is that of competition with railroad bonds. Since a very large volume of railroad bonds is held by relatively large investors, the income tax has become a very important item and the exemption of farm bonds from the income tax adds considerably to their ability to compete with railroad bonds. Probably the strongest competition which the new farm bonds had to meet, if they were to be sold in large quantities, was that of government and municipal bonds which were tax free. The difference between tax exemption and no tax exemption for these farm bonds might easily have been the difference between sales of adequate quantities and practical failure in the investment markets. The new farm bonds were to take their place at some point in the investment markets and whether they appealed to the class of investors who bought government issues depended largely on whether the bonds carried the tax-exemption feature. Otherwise, the new bonds would be forced into competition with industrial and public utility bonds which paid considerably higher rates than Congress expected the agricultural banks to have to pay.

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[1] Real estate held by the banks is taxed.

Lastly, the advantage gained through tax exemption is affected by the general condition of the investment market. If the market for stocks and industrial bonds is comparatively strong, the advantage of tax exemption is likely to be less than if the demand for such securities is weak. With a strong demand for these securities which give promise of yielding higher rates than federal and joint stock land bank, municipal, and public utility bonds, competition for the land bank bonds is likely to be weak.

As a matter of fact, tax exemption was a rather insignificant feature of the farm bonds in 1916 and 1917 when they were first placed on the market because of the low income tax rates which prevailed at that time. But during the years immediately following the war, tax exemption was tremendously important. On the basis of the income tax rates prevailing in 1922, the National City Company of New York calculated the rates which other securities must pay to yield a net income equivalent to that of a federal land bank bond. Thus, a yield of 4.50 per cent on a federal land bank bond was equivalent to a yield of 5.01 per cent for an investor whose income is $25,000, a yield of 6.44 per cent for an investor with an income of $100,000, and 10.01 per cent for an investor with an income of $1,000,000.[1] This difference would be still greater if state and local taxation were considered. It must be remembered, however, that the federal income tax and the surtax were extremely high in 1922. Moreover, a large percentage of the purchasers of these farm bonds doubtless have incomes of less than $25,000. One per cent is probably a liberal estimate of the average reduction of the rate on the bonds because of the tax-exemption feature. That is, if federal land bank bonds with the tax-exemption feature can be sold at par bearing 4 per cent, without tax exemption they could undoubtedly be sold at par bearing 5 per cent or less, except possibly in a time such as that following the World War.

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[1] See Wright, Ivan, "Farm-mortgage Financing," p. 164.

Reasons for Exemption.—Many people feel that the government made a grave error in exempting these farm bonds from taxation. It is described as an out-and-out subsidy to the agricultural industry. It seems to penalize private farm-mortgage bankers who do not have this privilege, and permits rich investors to avoid taxation. Why should agriculture be singled out for the privilege of having its securities tax free while the income from the securities of other industries is taxed?

Expediency.—Congress was determined to establish a national system of agricultural banks through which farmers could obtain loans at a rate of interest comparable to that of other industries, and tax exemption seemed to be the one final step in the arrangement which would guarantee such attractiveness that adequate funds would be forthcoming from the investing public. Provision for safe bonds would of course go a long way in attracting investors, but the system was new and unknown. We had never had experience in financing small individual farmers through a centralized banking system and investors would be extremely cautious. It seems that tax exemption was looked upon by Congress as the one expedient which would give the system the initial impetus which was desired.

Precedent.—Another factor which underlies the tax exemption provision of the law is the precedent found in European countries. The commissions which investigated the farm-credit systems in Europe found that farm securities were tax free in most cases. In Germany, where agricultural banking had been most highly developed, bonds were free of taxes. In that country, tax exemption seemed to be considered an essential feature of the successful operation of farmers' banks. Moreover, it had been in vogue for many decades and no serious results had been experienced. So this feature, along with many other features of the German agricultural banking system, was written into our law.

Double Taxation.—Doubtless the most potent defense of tax exemption for farm-mortage securities is that it makes it possible to avoid double taxation. In a large majority of the states both the mortgage and the farm are taxed. If the farm is valued at $10,000 and the farmer has a mortgage outstanding for $5,000, the total property taxed is $15,000. No injustice would result from this practice were it not for the fact that the farmer is usually unable to avoid the whole tax. His inability to avoid payment of taxes on the additional $5,000 is based upon two conditions: (1) weak bargaining power as a borrower and (2) the freedom from property taxation of most of the competing securities. The investor simply forces the farmer to pay the tax in the form of a higher rate of interest. In the case of government securities, the investor pays no property tax and he pays income tax only in case he holds very large quantities. In the case of industrial and railroad bonds it is common for no assessment to be made for personal property taxes. The laws of most states call for taxation of such personal property, but the difficulty of locating the securities is so great that assessors have long winked at the law, seemingly with the approval of the public. But farm mortgages are recorded with the local government officials and no difficulty whatever is found in locating and taxing them as personal property.

Several states are attempting to avoid double taxation by exempting mortgages from taxation.[1] Double taxation is coming to be widely recognized as an injustice to farmers. The Federal Farm Loan Act eliminates this injustice at one stroke, so far as the securities of the new system of banks are concerned. But the greatest objections raised have been concerned with the exemption of the income from the new farm bonds. The exemption of the bond itself from the property tax seems to be generally recognized as desirable, but the exemption of the income complicates our whole system of public finance and leaves Congress liable to severe criticism for special favoritism. Precedent for the exemption of the capital and surplus of the federal land banks, the national farm-loan associations, and the intermediate-credit banks is found in the Federal Reserve Act which gives similar exemption to the reserve banks.

From the first there was considerable opposition to the new system, particularly among the private farm-mortgage bankers. The attacks on the system centered around the tax-exemption feature, and a test was soon made of the constitutionality of this provision. In 1919, a shareholder of the Kansas City Title and Trust Company instituted proceedings to enjoin the company from investing in bonds of federal and joint stock banks. The chief contention was that Congress had exceeded its constitutional authority in exempting these bonds from taxation. The Federal Land Bank of Wichita and several joint stock banks intervened in the suit. The lower court declared the law constitutional in October, 1919, and the case was appealed to the United States Supreme Court. In February, 1921, the Supreme Court upheld the constitutionality of the law on all points. From a technical standpoint this decision seems to have settled once for all the question of the authority of Congress in providing for tax exemption of the securities. The question of the desirablity of exemption, however, remains unsettled, particularly the exemption of income from the bonds.

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[1] See Ivan Wright, "Farm-mortgage Financing," pp. 156–158, for a summary of the state laws regarding taxation of mortgages.

LOW BANKING COSTS

The recognition of the weak bargaining position of the individual borrower caused Congress to use special caution to see that the advantage gained in selling bonds at a low rate of interest was passed on to the farmer. It was one thing to create a safe, tax-exempt bond and quite another to operate the banking system in such manner that borrowers would get loans at a rate just slightly above the bond rate. The law arbitrarily fixes the maximum-rate which may be charged on loans of federal and joint stock land banks at 6 per cent.[1] The maximum rate which may be charged under any conditions on loans obtained through intermediate-credit banks is 9½ per cent.[2] Not only is the maximum rate set for all conditions, but a maximum margin of 1 per cent above the rate at which the most recently issued bonds are sold is set for all loans of federal and joint stock land banks and for intermediate-credit banks. That is, if the most recently issued bonds of the bank bear 4½ per cent, no loan or discount may be made at a rate above 5½ per cent. The law establishing the intermediate-credit banks provides further that no rediscounts may be made for subsidiary financial institutions if they have charged the farmer more than 1½ to 2½ per cent[1] more than the intermediate-credit bank is charging. The 1 per cent margin to cover expenses and yield dividends on the stock of the banks is considered entirely adequate on the basis of several years of experience of the banks. It is probable that less than 1 per cent margin has been charged on a majority of the loans of the federal land banks and the intermediate-credit banks. As would be expected, the privately owned joint stock banks have charged their full margin of 1 per cent except in a few cases of keen competition for loans. Also, financing institutions which rediscount with the intermediate-credit banks have in most cases charged the borrower the full margin of 1½ or 2½ per cent.

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[1] A flat charge of 2 per cent of the amount of the loan is permitted to cover various expenses of negotiating the loan. See Chap. XIII.

[2] This high rate may be charged only in case of livestock loans obtained through a financing agency which rediscounts the note with the intermediate-credit bank, and then only if the most recent bond issue bears the high maximum rate of 6 per cent.

The banks have been able to perform their services on the low margin of ½ to 1 per cent largely because of the economy of large-scale operation. Thus, the 12 intermediate-credit banks closed loans and rediscounts during 1926 amounting to $178,446-510, or an average of almost $15,000,000 per bank.[2] The 12 federal land banks had $1,077,818,724 of loans outstanding on Dec. 31, 1926, or an average of about $90,000,000 per bank. The 56 joint stock banks had $632,475,529 in loans on this date, or an average of about $11,000,000 each. Even though the margin of 1 per cent seems small, it is large in absolute amount when collected on such large volumes of loans.

Another notable economy is achieved by the federal land banks and intermediate-credit banks by the sale of combined issues of bonds of several banks through the fiscal agent of the Federal Farm Loan Board. The agent sells a large percentage of a $20,000,000 issue, for instance, in large lump sums through a few large investment banks at a low commission.

Also, the Federal Farm Loan Board exercises close supervision of the expenses of the banks. In this connection it should be observed that the officials of the federal land banks and the intermediate-credit banks have in most cases been very efficient. The same is doubtless true of the officials of most of the joint stock banks. The greatest inefficiency found in the operation of the federal land banks seems to prevail in the local loan associations.[1]

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[1] This maximum rate has been raised to 2½ per cent for livestock loans.

[2] Federal Farm Loan Board, *Ann. Rept.*, 1926.

CRITICISM OF THE GOVERNMENT'S METHODS

The Federal Farm Loan Act providing for federal and joint stock land banks is generally accepted as a proper and desirable piece of legislation. Adverse criticism of certain provisions of the law is sometimes heard, but on the whole it is coming to be recognized as second in importance only to the Federal Reserve Act in the whole history of banking legislation in this country. The Act of 1916 marks a step of particular importance in American investment banking history in that it provides a nation-wide system for financing our one industry which remains typically an industry of small individual business units. Other industries, such as manufacturing, mining, merchandising, and transportation, are typically organized in corporation or partnership units which are better adapted to raising funds necessary for the business. In fact the corporation and the partnership are essentially capital-raising devices. Two or more individuals join in establishing business firms primarily for the purpose of getting together sufficient capital for the enterprise. The corporation carries it one step further and sells stocks and bonds to the general public in order to raise funds. Our large investment banks of New York and other cities have been developed largely for the purpose of raising capital for corporations. They have developed to the point that they are able to collect funds from every corner of the country and from other countries at a very small cost to the corporation. No such service was available to farmers in 1916, nor indeed was it likely to be available for many decades. The farm-loan business comes in small sums and from widely distributed sources. Appraising is a tedious process and it was often done in a very haphazard manner. Most of the mortgage companies operated on a relatively small scale and their connections with the investment markets were rather strictly limited. In the absence of any very keen competition among the companies for these small and isolated loans, they were able to make the borrowers pay for the inefficiency of the system through high interest rates and commissions. The Act of 1916 marks an attempt on the part of the government to bolster up the bargaining power of a group of notably weak bargainers in a very important industry. It is an attempt to place agriculture on an equal footing with other industries in obtaining the credit necessary for its efficient operation.

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[1] Up to Nov. 1, 1922, the associations had been able to pass on to their members only about 46 per cent of the dividends paid to the associations by the banks. See J. B. Morman, "Farm Credits in the United States and Canada," p. 126.

Although the new farm-mortgage banking system has been well accepted on the whole, there have been many criticisms of specific provisions of the law. Criticisms have centered largely around two questions: (1) that of the desirability of a subsidy for agriculture, and (2) that of the degree of control which the federal government should exercise over the operations of the banks. Private farm-mortgage bankers have been the loudest in criticizing the government-subsidy phase of the system. Others which were not directly affected by the system have feared that this subsidy might be a precedent for further subsidies in other lines, while still others have feared that it would greatly interfere with the operation of our whole system of public finance and taxation. The subsidy took several forms, the most important of which is the tax exemption of the securities and of the capital of some of the banks. Also, the federal government set the federal land banks up in business and nursed them along for the first few years with public funds by buying practically all of their stock and large blocks of the early bond issues. Prior to 1923, the expenses of the Federal Farm Loan Bureau of the Treasury Department were paid from public funds, but the objections to this particular brand of subsidy prevailed and in that year an amendment to Sec. 302 of the Act provided that the expenses should be paid by the federal and joint stock banks in proportion to their gross assets.[1]

Congress anticipated the objections of private mortgage bankers and provided for joint stock banks to be organized by private capital and to have the tax-exemption privilege for their securities. Many mortgage companies have recognized the advantages of the new system and have taken out charters as stock banks, but the great majority have not. The most common reason given is the objection to the so-called "red tape" involved. Actually the high capital requirements and strict regulation of loans, interest rates, and other phases of operation are more important objections to reorganizing as joint stock banks.

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[1] Congress was not entirely consistent in this action since the expenses of the Comptroller of the Currency's Office which has similar functions are paid by the government, except that national banks pay examiners' fees.

The fear of some that the government subsidy for farmers' banks would be a dangerous precedent does not seem after 13 years to be very well based. Anyway, this objection assumes that legislative bodies follow precedent blindly. Of course, if a case should arise in which the conditions were similar to those underlying this legislation, a subsidy would be as reasonable in one case as in the other. Each case should stand on its own merits. It is a matter of analyzing the underlying conditions of cases which arise rather than a blind following of precedent.

The questions of justice in taxation and of the effect of tax exemption on our system of taxation and public finance have been raised in connection with the tax-exemption feature of the farm bonds. It was pointed out above that a distinction should be made between the exemption of the bonds themselves and the income from the bonds. The wisdom of the former exemption can scarcely be questioned, since it actually tends to correct the evil of double taxation. The justification of the exemption of income from the bonds seems to be based largely upon: (1) the effect non-exemption would have on the operation of the whole system, and (2) the effect that exemption has on the distribution of the tax burden among the taxpayers of the country. The effect of amending the law so as to make the income taxable can, of course, only be estimated. Undoubtedly it would result in a slightly higher rate on bonds in normal times and a considerably higher rate during periods of high income taxes such as that following the World War. But there seems to be no good reason why the system should not pay its own way now that it is well established. What agriculture needed was an efficient system of credit and this scarcely calls for a permanent subsidy.

Moreover, the exemption of the income of these bonds undoubtedly has an undesirable effect upon the distribution of the tax burden of the country. It provides an avenue through which those most able to pay taxes may escape. The difficulty is that the greater the ability of individuals to pay taxes the higher their rates and the more inducement to seek such securities. Placing the farm bonds back in the taxable list would doubtless prevent a considerable amount of tax dodging.

The subsidy involved in the establishment of the intermediate-credit banks in 1923 is based upon similar principles to that for the mortgage banks, except that the question of double taxation is not so important since the personal property on which loans are made is taxed only slightly if at all. Then the defense of tax exemption of federal intermediate-credit bank bonds must rest almost entirely upon its necessity to the successful sale of bonds. It seems that after a start of 10 or 15 years, these securities might in justice to all concerned be placed on the taxable list along with the securities of other industries.

Another question which arises in connection with the intermediate-credit banks is that of government ownership. In the case of the federal land banks the government has delivered the stock to the borrowers of the system. But borrower ownership hardly seems feasible for the intermediate-credit banks because of the short term of the loans. It was considered desirable to have these banks operated by the officials of the land banks and this prevented ownership by private capital. Under such conditions the government seems to be the logical owner of the banks. So far as control is concerned, there is little difference in the relation of the government to the federal land banks and the intermediate-credit banks, but ownership of the stock of the latter banks makes the government responsible for bonds issued. This is indeed a questionable function for the government.

Some of the most severe criticisms of the government's relation to the farm-loan system centers around the question of control of the banks, particularly of the federal land banks. As would be expected, this criticism comes chiefly from the borrowers or those presumed to represent borrower interests. When the federal land banks were established it was thought that full control would be turned over to the borrowing interests as soon as the 5 per cent margin of loans was sufficient to absorb the stock of the banks. But between 1916 and 1923 Congress changed its opinion on this point and at the latter date amended the Act so as to leave control in the hands of the government. The following quotation from an article published in 1924 is typical of the views of those who felt that the government was improperly concentrating the control of the federal land banks in the hands of the Federal Farm Loan Board:

> Within a year after the system was started, in 1917, the farmers had met all requirements to take over management of the banks.

But no elections were called. The Federal Farm Loan Board, announcing itself in its first report as opposed to control of banks by borrowers—although the first premise of the act the board was intrusted to administer was that stockholders who were also borrowers should operate these land banks proceeded to override the law and to usurp vital functions. To prevent farmers from demanding control using the plausible excuse that they took the action to protect bond buyers and also to promote the sale of Liberty bonds, then being issued, the board secured an amendment deferring elections.

In 1923, the Federal Farm Loan Board wrote and obtained from Congress a revision and emasculation of the original act by means of the Strong bill. Its provisions were a betrayal of the public trust, stultifying the purposes of the original act, legalizing the usurpation of power by the board, and banishing the hope of the farmer stockholders to regain control of their property.[1]

The potential dangers involved in the control of this enormous banking business by a handful of political appointees must of course be recognized. The Federal Farm Loan Board does indeed have extensive powers. The same is true, however, of the Federal Reserve Board, and the dangers are even greater because of its power to influence business activity in all lines. The actions of both boards require close scrutiny on the part of Congress and the Treasury Department. But before any program which places control of the federal land banks in the hands of borrowers is adopted, two questions should be considered thoroughly. First, would the thousands of isolated borrowers take sufficient interest in the management of the banks? Our 13 years of experience does not indicate that the local loan associations would be sufficiently responsible. Second, if borrowers should show sufficient interest in the policies of the banks, would borrower control assure the conservative lending policy which is necessary in the maintenance of a market for low interest bonds? Naturally, the borrower is interested chiefly in getting a loan, and once he has the loan with specified conditions of repayment his interest in the system wanes. On the other hand, the investor naturally has a more permanent interest in the policies of the banks, since the continued collection of interest and the collection of the principal at maturity depend upon conservative and wise management of the system from year to year. It must be remembered that the key to the continued successful operations of these banks is the appeal which the bonds have for the investing public. There is very grave danger that borrower control would defeat the purposes for which the system was established. The board which is an unbiased third party should be in far better position to maintain a market for low-interest-bearing securities in the quantities required by the agricultural industry.

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[1] From an article by Gertrude Shelby Mathews, in *The Nation*, Dec. 3, 1924.

Questions and Problems

1. *a.* Explain why the federal government has attempted to guarantee cheap credit for farmers.
   b. Can you justify the government's action and answer the criticism that it is unduly catering to a "special interest"?

2. Outline briefly the provisions of the Federal Farm Loan Act and the rulings of the Federal Farm Loan Board which were specially designed to produce a security which would sell at a low rate of interest.

3. Considering the variation in credit risks in various parts of the country, what is your opinion of the justice of the provision for mutual liability of the 12 banks?

4. Show how the board controls the personnel of the federal land and intermediate-credit banks.

5. Explain specifically what is meant when it is said that the federal farm-loan system is exempt from taxation.

6. Show how the anticipated competition of the securities of these banks with those of other banks, corporations, and governmental bodies affected Congress in its decision to exempt them from taxation.

7. *a.* Are the exemptions of income and property based upon the same principles? Explain.
   b. Was the exemption of income justified?

8. Describe the methods used by the government in running the banks at a minimum cost and in extending the advantage of this economy to the borrowers.

9. Make an analysis of the antisubsidy arguments against the federal farm-loan system.

10. Should the borrowers—owners of the land banks—control them?

References for Further Reading

Eliot, Clara, "The Farmer's Campaign for Credit," pp. 78–86.
Hardy, C. O., "Tax-exempt Securities and the Surtax," Chaps. 1, 3, 4, and 7, and Appendixes A and F.
Larmer, F. M., "Financing the Livestock Industry," Chap. 12.
Morman, J. B., "Farm Credits in the United States and Canada," Chap. 10.
Wright, Ivan, "Farm-mortgage Financing," Chap. 12.

APPENDIX A

THE FEDERAL FARM BOARD AND MARKETING CREDIT

The Agricultural Marketing Act (June 15, 1929) authorized the appropriation of a $500,000,000 revolving fund from the federal treasury to be advanced to cooperative marketing associations and "stabilization corporations" by a Federal Farm Board. Briefly, the board is to supplement intermediate-credit banks and commercial banks by making larger advances, at lower rates of interest, and for periods of time better adapted to "orderly marketing." According to Sec. 7 of the Act, the board may lend to cooperative associations to assist in:

1. The effective merchandising of agricultural commodities and food products thereof;
2. The construction or acquisition by purchase or lease of physical marketing facilities for preparing, handling, storing, processing, or merchandising agricultural commodities or their food products;
3. The formation of clearing-house associations;
4. Extending membership of the cooperative association applying for the loan by educating the producers of the commodity handled by the association in the advantages of cooperative marketing of that commodity; and
5. Enabling the cooperative association applying for the loan to advance to its members a greater share of the market price of the commodity delivered to the association than is practicable under other credit facilities.

In addition, Sec. 9 authorizes the board to make loans to stabilization corporations owned by cooperative associations. The Act provides for the selection of an advisory committee for each of various agricultural commodities. This committee is to recommend the establishment of a stabilization corporation, (1) to act as a marketing agency for a group of cooperative associations, and (2) to attempt to control any surplus in the commodity by purchasing, handling, preparing, storing, processing, and merchandising any merchandise,

> . . . otherwise than for the account of its stockholders or members, any quantity of the agricultural commodity or its food products whether or not such commodity or products are acquired from its stockholders or members.

Also, the board may make advances from the revolving fund to meet temporary obligations under price-insurance agreements made by cooperative associations with the board.

The first loan was granted by the board on Aug. 8, 1929 to the Florida United Growers and the Florida Citrus Growers' Exchange. The amount of the loan was $300,000. According to a press release of the board:

> . . . This money will be used to equip, immediately, certain citrus packing plants in Florida with heating and precooling facilities, to enable the growers to meet government regulations in controlling the Mediterranean fruit fly and thus to get their crop of this year onto the market. The loan is classed by the board as an emergency loan to meet an emergency marketing situation.

The second loan was arranged on Aug. 18. The press release for that date includes the following statement, which will illustrate the methods used in making loans:

> In line with its policy of aiding agriculture by developing and strengthening farmer-owned and farmer-controlled marketing organizations, the Federal Farm Board has agreed to extend substantial financial aid to California organizations engaged in the handling of raisin grapes and other grapes. The organizations involved are the Sun-Maid Raisin Growers of California, one of the country's oldest and largest cooperatives, and the Federal Fruit Stabilization Corporation, a new organization recently created for the purpose of helping to stabilize the grape industry.
>
> The Federal Farm Board has undertaken, in cooperation with the Federal Intermediate Credit Bank of Berkeley, the Security First National Bank of Los Angeles, and the Bank of Italy, the National Trust and Savings Association, and the Anglo, London & Paris National Bank of San Francisco, to furnish the Sun-Maid Raisin Growers of California a credit up to a maximum of $9,000,000 with which to make advances to farmers on their 1929 raisin crop. The board and the banks each furnish half of the sum named.
>
> The board has also agreed to aid the Sun-Maid cooperative in such other ways as will ensure to the raisin growers the undisturbed use and control of the valuable Sun-Maid trademarks, the modern and efficient plants, and the international sales organization which the raisin growers

> of California have built up over a long period of years as a part of their courageous struggle to better conditions in their industry.
>
> It has also been agreed between the Federal Farm Board and the banks named above that the Federal Fruit Stabilization Corporation shall be granted sufficient financing to stabilize the fresh-grape phase of the industry by purchases of white grapes from California growers.
>
> This financial aid to the fresh-grape industry has been given because the Federal Farm Board recognizes that the success of any effort to improve conditions in the grape industry of California must be dependent (1) upon complete coordination between the different elements involved, such as raisin grapes and fresh grapes, and (2) recognition on the part of the growers themselves that they must subscribe to an industry program and be willing to follow the leadership brought about by an agreement on the part of the various organizations interested. The board and the banks, with the exception of the Federal Intermediate Credit Bank, which is not permitted by the law to lend money on fresh fruits, will each furnish half of the loans on fresh grapes.
>
> The board feels that the aid extended to the Sun-Maid Raisin Growers will benefit the fresh-grape industry of California and it is equally confident that the aid extended to the fresh-grape industry will benefit the raisin growers. Both branches of the industry must be considered in any program designed to bring prosperity to California growers of grapes.
>
> The basic rate of the advance to be made by the Sun-Maid Raisin Growers on raisins will be 3 cents per pound, which is something more than double the amount advanced to growers last year.

Up to Dec. 2, this was the only loan arranged for a stabilization corporation. Most of the loans granted from Aug. 8 to Dec. 2 were "commodity loans" to enable cooperative associations to make advances to members beyond what they were able to do with loans from intermediate-credit banks and other banking organizations. The plan of the board regarding "advance" loans to cotton associations will illustrate. The press release of the board on Aug. 19 was as follows:

> Following a number of conferences with officials of the American Cotton Growers' Exchange, the Federal Farm Board has tentatively agreed to make certain financial advances to cotton cooperative associations of the South to assist in the movement of this year's crop. These associations are now able to obtain loans from the Federal Intermediate Credit banks to the amount of 65 per cent of the value of the cotton. The Federal Farm Board proposes to loan an additional 25 per cent—a total of 90 per cent for the two government agencies—on cotton on

which a definite value has been fixed by hedging in the futures market. The total volume of advances of this sort to be made by the Federal Farm Board will be limited only by the actual requirements of the cotton cooperative associations. It is expected that the sum involved for this year's marketing operations will run somewhere between $5,000,000 and $10,000,000.

The effect of the secondary loans by the Federal Farm Board will be to permit the cooperative association to make final settlement with the member-grower when the latter desires to sell his cotton, without forcing that cotton on to the market at a time when buyers may already be oversupplied.

From the Federal Intermediate Credit Bank and the Federal Farm Board the association will receive advances equal to 90 per cent of the fixed value. To this amount the cotton associations will add 10 per cent from their own capital reserves, will pay in full the grower who is in distress and must have money, and will at the same time be able to merchandise the cotton in an orderly fashion as the spinning mills of the world require it.

The loans arranged by the board from Aug. 8 to Dec. 2, according to press releases supplied by Chris L. Christensen, Secretary of the Board, are listed in the following table.

FEDERAL FARM BOARD LOANS FROM ORGANIZATION TO DEC. 2, 1929

Date	Borrower	Amount	Purpose		
			Advance	Facility	Emergency
Aug. 8	Florida United Growers and Florida Citrus Growers' Exchange	$ 300,000		✓	✓
Aug. 18	Sun-Maid Raisin Growers of California	4,500,000	✓		
Aug. 18	Federal Fruit Stabilization Corporation	Indefinite			
Aug. 19	American Cotton Growers' Exchange.	Maximum of 25% of value of cotton offered	Chiefly		
Sept. 5	Cooperative Grange League Federation Exchange, Inc.	$ 50,000		✓	
Sept. 12	Egyptian Seed Growers' Exchange of Flora, Ill.	2¢ per pound	✓		
Sept. 12	Rice Growers Association of California	$ 230,000	✓		
Sept. 16	Arkansas Rice Growers' Cooperative Association.	10% of market value	✓		
Sept. 18	North Dakota-Montana Wheat Growers' Association	$ 500,000	✓		
Sept. 23	Mountain States Honey Producers' Association	135,000	✓		

Federal Farm Board Loans from Organization to Dec. 2, 1929 (*Continued*)

Date	Borrower	Amount	Purpose		
			Advance	Facility	Emergency
Sept. 26	Georgia Cotton Growers' Cooperative Association	750,000	✓		
Oct. 9	Tennessee Cotton Growers' Association	250,000	✓		
Oct. 9	South Carolina Cotton Growers' Cooperative Association	500,000	✓		
Oct. 9	Florida Citrus Exchange	2,800,000		✓	
Oct. 11	Ohio Farmers Cooperative Milk Association of Cleveland	400,000	✓		
Oct. 16	Nebraska-Wyoming Wheat Pool	40,000	✓		
Oct. 21	Cotton Cooperatives	To average 16¢ per lb. Nearly $100,000,000 available	✓		
Oct. 22	Mississippi Cotton Cooperative Association	$ 300,000	✓		
Oct. 22	Southwest Cooperative Wheat Growers' Association	500,000	✓		
Oct. 22	Texas Farm Bureau Cotton Association	500,000		✓	
Oct. 28	Wheat Cooperatives	To average about $1.18 per bu. Nearly $100,000,000 available	✓		
Nov. 5	National Producers' Feeder Pool.	Maximum, $5,000,000	For financing feeders		
Nov. 7	Oklahoma Cotton Growers' Association	$ 493,000	✓		
Nov. 8	North Carolina Cotton Growers' Cooperative Association	$ 2,500,000	✓		
Nov. 8	Oklahoma Cotton Growers' Association	4,507,000	✓		
Nov. 8	Staple Cotton Cooperative Association	6,000,000	✓		
Nov. 8	North Dakota-Montana Wheat Growers' Association	2,000,000	✓		
Nov. 11	Southwest Irrigated Cotton Growers' Association	750,000	✓		
Nov. 11	Arkansas Cotton Growers' Cooperative Association	500,000	✓		
Nov. 11	Mississippi Cooperative Cotton Association	300,000	✓		
Nov. 11	Tennessee Cotton Growers' Association	250,000	✓		
Nov. 11	Southwest Cooperative Wheat Growers' Association	500,000	✓		
Nov. 12	Texas Farm Bureau Cotton Association	2,000,000	✓		
Nov. 12	Alabama Farm Bureau Cotton Association	2,000,000			

Federal Farm Board Loans from Organization to Dec. 2, 1929
(*Continued*)

Date	Borrower	Amount	Purpose		
			Advance	Facility	Emergency
Nov. 13	Louisiana Farm Bureau Cotton Growers' Cooperative Association	1.000.000	✓		
Nov 13	Arizona Pimacotton Growers	750.000	✓		
Nov. 21	Farmers' Union Terminal Association	400.000	✓		
Nov. 25	Enid Wheat and Grain Growers' Association	500.000	✓		
Nov. 25	Colorado Bean Growers' Association	40.000	✓		
Nov. 29	South Dakota Wheat Growers' Association	1.000.000	✓		
Dec. 2	Western Cattle Marketing Association	5.000.000	✓		
Dec. 2	Farmers Union Terminal Association	[illegible]	✓		

The interest rate on all loans is to be

> . . . equal to the lowest rate of yield (to the nearest one-eight of 1 per cent) of any government obligation bearing a date of issue subsequent to Apr. 6, 1917 (except postal savings bonds), and outstanding at the time the loan agreement is entered into . . . Provided, That in no case shall the rate exceed 4 per cent per annum on the unpaid principal.
>
> . . . Loans for the construction or purchase of physical facilities, together with interest on the loans, shall be repaid upon an amortization plan over a period not in excess of 20 years.

The term of other loans seems to be left to the discretion of the board.

THE BOARD AS A FINANCING AGENCY

Although the lending function of the newly created Federal Farm Board has attracted wide attention, it is probable that the board will never supply a very large portion of the funds used in marketing farm products. The $500,000,000 authorized to be appropriated is, of course, only a "drop in the bucket" as compared with the total financing of farm products in any one year. Present indications are that the greatest influence of the revolving fund will be exercised through potential rather than actual loans. Thus, on Oct. 21 the board issued a statement to the effect that in its opinion the price of cotton was too low in the light of demand and supply conditions, and that it was in position to advance nearly $100,000,000 (and would ask Congress for more, if necessary) to bring the total borrowed by the cotton associations up to an average of 16 cents per pound. A similar statement was made for wheat—with the same "nearly $100,000,000."

The loans which are made for the purpose of making advances to members beyond what commercial banks and intermediate-credit banks will lend obviously involve greater risks than banks are willing to take. Undoubtedly losses will occur, and it is a question as to how long Congress will make appropriations in the face of such losses.

It is likely that the actual financing of the marketing of farm products will turn out to be only a minor function of the board. Many students of farm economic problems hold the opinion that other functions will far outshadow its lending function. Even now its function seems to be chiefly the devising of ways and means of improving the marketing methods of cooperative associations.

APPENDIX B

FORM OF STATEMENT RECOMMENDED BY THE AMERICAN BANKERS' ASSOCIATION FOR LOANS TO FARMERS[1]

Statement of..

Address...

To..Bank of..............

I make the following statement of all my assets and liabilities as at the close of business on........................and give other material information for the purpose of obtaining advances on notes and bills bearing my signature or indorsement and for obtaining credit generally upon present and future applications. If any change materially reduces my means I will immediately notify the bank.

(Please answer all questions and fill in all blanks)

Assets	Liabilities
Cash on hand and in bank....$.....	Accounts and notes owed by me without security......$.....
Loans and accounts due to me (good)....................	Notes or mortgages owed by me with real estate as security ....
Farm products...............	Notes owed by me with chattel mortgage as security...................... .....
Livestock......	Other indebtedness (itemized) ....
Farm land and buildings (see schedule).................	....
Other property (itemized).....	Total liabilities ....
....	Net worth ....
Total	Total ......

Location of land owned	Acres	Estimated value	Assessed at	Mortgaged for

---

[1] *Journal of the American Bankers' Association*, Vol. 10, No. 5, November, 1917, pp. 351*ff*.

Title.—The title to all above described real estate is in my name solely, except as follows:..

....

Buildings.—State general character............................

Implements.—State general character of those listed as assets.......

....

Insurance.—Fire, $....Life, $....
Who is beneficiary?................

Contingent Liability.—As indorser or guarantor................$.....

Accounts and Notes Payable.—(If any are past due state amounts and reasons)...................$.....

Other Liens.—(If any other liens on assets, state amount and circumstances)...................$.....

I hereby certify that the figures and statements contained on both sides of this sheet are true and give a correct showing of my financial condition.
Signed this..........day of..........19......Name..................

Reverse Side of Form

State character of loans and accounts listed as assets......................

....

....

....

....

If any leased land used, state acreage, nature, use and terms of rental.

....

....

....

....

(The balance of this space may be used for printing any questions desired to be asked amplifying statement of condition as shown on opposite page.)

FORM OF STATEMENT USED BY THE NEW YORK FEDERAL RESERVE BANK FOR FARMERS[1]

Statement of ....
Business........................... Address ....

To.................................. Bank of ....

I make the following statement of all my assets and liabilities as at the close of business on.................................and give other material information for the purpose of obtaining advances on notes and bills bearing my signature or indorsement and for obtaining credit generally upon present and future application.

[1] Munn, Glenn G., "Bank Credit," p. 102.

(Please answer all questions and fill in all blanks)

Assets		Liabilities	
Cash on hand and in bank....	$.....	Accounts owed by me.......	$.....
Accounts due to me—good....	.....	Notes owed by me without security.................	.....
Unsecured loans due to me—good.........................	.....	Notes owed by me with security other than real estate.................	.....
Secured loans due to me......	.....	Notes or mortgages owed by me with real estate as security.................	.....
Mortgage loans due to me.....	.....	Notes owed by me with chattel mortgage security.	.....
Farm products on hand.......	.....	Other indebtedness (itemize).	.....
Livestock on hand...........	.....		
Farm land (see schedule)......	.....		
Buildings....................	.....		
Farm implements and machinery......................	.....		
Other property (itemize)......	.....		
		Total liabilities	....
		Net worth.......	....
Total..................	....	Total.......	...

Location of land owned	Acres	Estimated value	Assessed at	Mortgaged for	Insured for

Title.—The legal and equitable title to all pieces of above described real estate is in my name solely, except as follows: . ...

. ...

.. ..

Buildings.—State general character..........Ever destroyed by fire?..............................

Implements.—State general character of those listed as assets.......
....

Growing Crops.—Outlay to date is as follows:

Cost of seed................$.....
Cost of fertilizer............ .....
Cost of labor............... .....
Other costs (itemize)........ .....
Total.................... .....

Insurance..Fire, $...Life, $.....
Who is beneficiary?...............

Contingent Liability.—As indorser $.....
As guarantor, ...
As bondsman for others,..... .....

Accounts and Notes Payable.—If any are past due state amounts and reasons.........................
....

Maximum Debt.—During last calendar year, my total indebtedness was at a maximum ($....) on......
and at a maximum ($....) on......

Other Liens.—If any other liens on assets, state amount and circumstances.........................
....
....

Age.—My age is......Married or single.........................

I hereby certify that figures and statements contained on both sides of this sheet are true and give a correct showing of my finiancial condition. Signed this..........day of..........19..........Name..........

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